As filed with the Securities and Exchange Commission on March 26, 2021.

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Akoya Biosciences, Inc.

(Exact name of Registrant as specified in its charter)

Delaware	**3826**	**47-5586242**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

100 Campus Drive, 6th Floor
Marlborough, MA 01752
(855) 896-8401
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Brian McKelligon
Chief Executive Officer
Akoya Biosciences, Inc.
100 Campus Drive, 6th Floor
Marlborough, MA 01752
(855) 896-8401
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Michael S. Kagnoff
Patrick J. O'Malley
Andrew Ledbetter
DLA Piper LLP (US)
4365 Executive Drive, Suite 1100
San Diego, CA 92121
(858) 677-1400

Deanna L. Kirkpatrick
Yasin Keshvargar
Davis Polk & Wardwell LLP
450 Lexington Avenue
New York, NY 10017
(212) 450-4000

Approximate date of commencement of proposed sale to the public:
As soon as practicable after this registration statement becomes effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, check the following box: ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	**Proposed Maximum Aggregate Offering Price[(1)(2)]**	**Amount of Registration Fee**
Common Stock, par value $0.00001 per share	$115,000,000	$12,546.50

(1) Includes offering price of any additional shares that the underwriters have the option to purchase.

(2) Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(o) under the Securities Act of 1933, as amended.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

Subject to Completion, Dated March 26, 2021.

Preliminary Prospectus

Shares

Akoya Biosciences, Inc.

Common Stock

This is the initial public offering of shares of common stock of Akoya Biosciences, Inc. All of the shares of common stock being sold in this offering are being sold by us.

Prior to this offering, there has been no public market for our common stock. It is currently estimated that the initial public offering price per share will be between $ and $. We intend to apply to list our common stock on the Nasdaq Global Select Market ("Nasdaq") under the symbol "AKYA."

We are an "emerging growth company" and a "smaller reporting company" as defined under the federal securities laws, and as such, we have elected to comply with certain reduced reporting requirements for this prospectus and may elect to do so in future filings.

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 11 to read about factors you should consider before buying shares of our common stock.

Neither the Securities and Exchange Commission (the "SEC") nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Total
Initial public offering price	$	$
Underwriting discounts and commissions[(1)]	$	$
Proceeds, before expenses, to Akoya Biosciences, Inc.	$	$

(1) We have agreed to reimburse the underwriters for certain FINRA-related expenses. See "Underwriting" for additional information regarding compensation payable to the underwriters.

We have granted the underwriters an option for a period of 30 days from the date of this prospectus to purchase up to an additional shares of common stock from us at the initial public offering price less the underwriting discounts and commissions.

The underwriters expect to deliver the shares of common stock to purchasers against payment on , 2021.

Joint Book-Running Managers

J.P. Morgan **Morgan Stanley** **Piper Sandler** **Canaccord Genuity**

Prospectus dated , 2021.

TABLE OF CONTENTS

We have not, and the underwriters have not, authorized anyone to provide you with different information or to make any other representations, and we and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information others may give you. We are offering to sell, and seeking offers to buy, shares of our common stock only under circumstances and in jurisdictions where it is lawful to do so. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained in this prospectus is accurate as of any date other than its date. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States: Neither we nor the underwriters have done anything that would permit this offering or the possession or distribution of this prospectus in any jurisdiction where action for those purposes is required, other than in the United States. Persons outside of the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of our common stock and the distribution of this prospectus outside of the United States.

Market and Industry Data

We use market and industry data, forecasts and projections throughout this prospectus. We have obtained certain market and industry data from publicly available industry publications. These sources generally state that the information they provide has been obtained from sources believed to be reliable, but that the accuracy and completeness of the information are not guaranteed. The forecasts and projections are based on historical market data, and there is no assurance that any of the forecasts or projected amounts will be achieved. The market and industry data used in this prospectus involve risks and uncertainties that are subject to change based on various factors, including the COVID-19 pandemic and those discussed in the

section titled “Risk Factors.” These and other factors could cause results to differ materially from those expressed in, or implied by, the estimates made by independent parties and by us. Furthermore, we cannot assure you that a third party using different methods to assemble, analyze or compute industry and market data would obtain the same results.

Trademarks and Tradenames

We own various U.S. federal trademarks and unregistered trademarks, including our company name, logo and solution names and other trade or service marks. All other trademarks or trade names referred to in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus are referred to without the symbols® and ™, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

PROSPECTUS SUMMARY

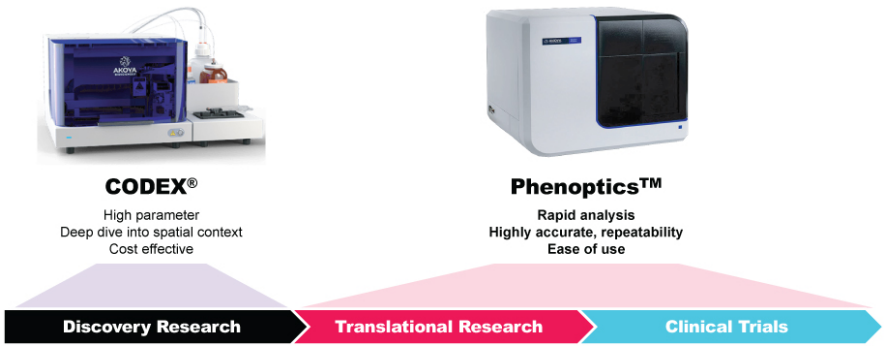
This summary highlights selected information that is presented in greater detail elsewhere in this prospectus. This summary does not contain all of the information you should consider before investing in our common stock. Before investing in our common stock, you should read this entire prospectus carefully, including the sections titled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," and our consolidated financial statements and the related notes included elsewhere in this prospectus before making an investment decision. Some of the statements in this prospectus constitute forward-looking statements that involve risks and uncertainties. See the section entitled "Special note regarding forward-looking statements." Unless the context otherwise requires, the terms "Akoya," "we," "us" and "our" refer to Akoya Biosciences, Inc. together with its consolidated subsidiary.

Overview

We are an innovative life sciences technology company delivering spatial biology solutions focused on transforming discovery and clinical research. Our mission is to deliver a revolutionary new class of spatially derived biomarkers that empower life sciences researchers to better understand disease and clinicians to improve patient outcomes. Spatial biology refers to a rapidly evolving technology that enables academic and biopharma scientists to detect and map the distribution of cell types and biomarkers across whole tissue samples at single cell resolution, enabling advancements in their understanding of disease progression and patient response to therapy. Through our CODEX and Phenoptics platforms, reagents, software and services, we offer end-to-end solutions to perform tissue analysis and spatial phenotyping across the full continuum, from discovery through translational and clinical research.

Our spatial biology solutions measure cells and proteins by providing biomarker data in its spatial context while preserving tissue integrity. Biomarkers are objective measures that capture what is happening in a cell or tissue at a given moment. Current genomic and proteomic methods, such as next-generation sequencing (NGS), single-cell analysis, flow cytometry and mass spectrometry, are providing meaningful data but require the destruction of the tissue sample for analysis. While valuable and broadly adopted, these approaches allow scientists to analyze the biomarkers and cells that comprise the tissue but do not provide the fundamental information about tissue structure, cellular interactions and the localized measurements of key biomarkers. Furthermore, current non-destructive tissue analysis and histological methods provide some limited spatial information, but they only measure a minimal number of biomarkers at a time and require expert pathologist interpretation. Our platforms address these limitations by providing end-to-end solutions that enable researchers to quantitatively interrogate a large number of biomarkers and cell types across a tissue section at single cell resolution. The result is a detailed and computable map of the tissue sample that thoroughly captures the underlying tissue dynamics and interactions between key cell types and biomarkers, a process now referred to as spatial phenotyping. We believe that we are the only business with the breadth of platform capabilities that enable researchers to do a deep exploratory and discovery study, and then further advance and scale their study through translational and clinical phases, thereby helping to provide a broad scope of understanding of human biology, disease progression and response to therapy.

We offer two distinct platforms for spatial phenotyping, each designed to serve the unique needs of our customers in the discovery, translational and clinical markets. The first, CODEX, is an ultra-high parameter and cost-effective platform ideally suited for discovery research with the ability to identify more than 40 biomarkers in a tissue sample. The second, Phenoptics, is a high-throughput platform with the automation and robustness needed for translational and clinical applications. Both offer seamless and integrated workflow solutions for our customers, including important benefits such as flexible sample types, automated sample processing, scalability, comprehensive data analysis and software solutions and dedicated field and applications support. With these platforms, our customers are performing spatial phenotyping to further advance their understanding of diseases such as cancer, neurological and autoimmune disorders, and many other therapeutic areas.



Our co-founder and director, Dr. Garry Nolan, originally developed our CODEX technology to better identify biomarkers in discovery research while leading a team at the Leland Stanford Junior University, or Stanford. We license certain patents, know-how and proprietary technology utilized in our CODEX platform from Stanford. In order to expand our offerings to the translational and clinical markets, we acquired our Phenoptics platform in 2018 from PerkinElmer Health Sciences, Inc., or PKI, from whom we license certain patents incorporated into our Phenoptics platform.

As of December 31, 2020, we have over 550 instruments installed across a broad group of customers throughout North America, Europe and APAC, reflecting an increase of 27% in the number of instrument placements over 2019. We generated total revenue of $42.2 million in the year ended December 31, 2019 and $42.4 million in the year ended December 31, 2020, successfully managing through significant COVID-19 headwinds, realizing year-over-year growth and minimizing losses through cost containment. We have incurred net losses since inception, including net losses of $14.8 million for the year ended December 31, 2019 and $16.7 million for the year ended December 31, 2020.

Our Competitive Strengths

We believe the growth of our business will be propelled by our competitive strengths, including:

- **Established leader in the spatial biology market with a strong competitive position and proven products.** We believe we are the leading spatial biology company, offering products to hundreds of customers across a diverse base, including leading biopharma companies, academic research centers and governmental institutions worldwide.
- **Comprehensive solutions that address the entire continuum.** We have a purpose-built portfolio offering instruments, consumables, related software and services to help serve the unique needs of our customers from discovery through translational and clinical research.
- **Relationships with leading biopharma companies, top research institutions and medical centers.** We have relationships with thought leaders such as Dana Farber Cancer Institute, Johns Hopkins University, University of California San Francisco (UCSF), and MD Anderson, and many other leading biopharma companies, top research institutions and medical centers and contract research organizations.
- **Large, addressable and rapidly evolving market.** We believe the spatial biology market is in its nascent stages. The market is currently estimated to be $17 billion and growing and spans discovery through translational and clinical research.
- **Our people.** Our success begins with our people. All of our employees contribute to keeping us at the forefront of the spatial biology market, from research and development, to sales and marketing, and operations and management.

Our Growth Strategy

Our growth strategy includes the following key elements:

- **Enhance sales and marketing efforts to drive adoption of our solutions with new and existing customers**. To capitalize on the demand for spatial analysis solutions and drive adoption of our platforms across the entire market continuum, we intend to invest heavily to expand our sales and marketing organizations and increase the scale of our outbound marketing activities.
- **Invest in new applications, content development and workflow improvements to drive pull through**. Our research and development team is dedicated to continuously developing and improving our instruments, reagents menu and software solutions, and delivering a full end-to-end workflow to our customers. As we identify and launch new solutions, we expect to drive incremental reagent and software revenue from existing and new customers.
- **Continued expansion of next-gen cloud-based data analysis and collaboration platform**. Spatial analysis of tissue generates large and complex image data per sample. Therefore, addressing the big data challenge and delivering next-generation automated intelligence analysis methods will be a key customer need in spatial biology. Our cloud-based Proxima software is an open solution designed to meet both requirements by enabling the storage, sharing, analysis, and visualization of spatial phenotyping images and experimental results generated on our platforms.
- **Investment in clinical developments to demonstrate validity**. Our collaborations with key opinion leaders in major cancer institutions, universities and large biopharma customers enables us to participate directly in the advancement of our platform from translational research to future potential clinical use. Partnerships such as those with UCSF, Johns Hopkins and Dana Farber Cancer Institute drive the demonstration and validation of the clinical utility of our platform. In partnership with these and other key opinion leaders, we believe we will establish industry standards that further solidify our platform as the go-to clinical spatial biology solution.

Industry and Market Opportunity

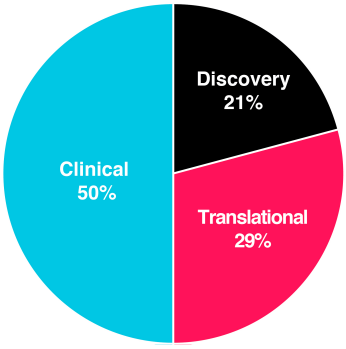
Genomics analysis techniques have evolved from bulk genomics to single-cell analysis, and proteomics techniques such as mass spectrometry are advancing to provide cutting-edge unbiased approaches. In parallel, there is a growing need in areas such as immuno-oncology for biomarkers that are more predictive of a patient's response to therapy. Spatial biology has emerged as a potential answer to these needs and represents one of the next major frontiers in life sciences research. It has become a key area of focus for researchers and clinicians as spatial phenotyping is able to measure protein and cellular interactions, while maintaining spatial context within a selected tissue sample. The result is a visual and computable measurement of histological patterns and an in-depth understanding of disease pathology, adding a new dimension of insights from discovery through clinical and translational research. By providing single-cell resolution with spatial context within a single platform, researchers are able to achieve an understanding of how even small subpopulations of cells can play pivotal roles in disease pathology and patient outcome. In addition, recent innovations within proteomics have enabled unprecedented identification of novel proteins, expanding the need for spatial biology platforms that can functionally characterize these newly discovered proteins.

While spatial biology has many applications, spanning from discovery through translational and clinical research, the leading applications today include:

- *Immuno-oncology:* profiling of a tumor and its microenvironment.
- *Immunology:* supporting sub-specialties such as autoimmune disorders and transplant medicine.
- *Neuroscience:* characterizing neuroinflammation and neurodegeneration.
- *Infectious disease*: understanding the underlying biology of infectious diseases and immune response.
- *Developmental biology:* understanding tissue differentiation and stem cell biology to inform cell therapy development.
- *Dermatology:* immunophenotyping atopic dermatitis, psoriasis and similar dermatological conditions.

The spatial biology market sits within a larger life sciences technology market. Within this market, spatial biology is currently estimated to be over $17 billion across the discovery, translational and clinical research markets. The market for spatial biology encompasses the full research and drug development continuum, ranging from discovery through translational and clinical research. Each of these specific market segments have unique application and workflow needs and require fit for purpose product offerings. Today, our products and solutions are primarily sold into the cancer discovery and translational markets, representing a $5 billion addressable market. We believe that our offerings can be readily extended to serve adjacent application areas, including immunology and neurobiology, and as well applications in clinical markets, certain of which may require obtaining FDA approval for our products. We currently estimate that within the spatial biology market, half of the opportunity is in the discovery and translational research markets and the other half is in the clinical market. With the growing adoption and innovation of spatial biology solutions and as spatial phenotyping is further validated through rapid acceleration of peer-reviewed publications, we believe the global total addressable market ("TAM") will continue to grow over the near and long-term horizon. Given the critical need for spatial biology, we believe our products are uniquely suited to address the specific needs of researchers across this continuum from discovery through translational and clinical markets.

Current spatial biomarker market for cancer, immunology and neurobiology >$17bn



Market Needs

While discovery researchers currently have access to a range of tools that enable genomic, proteomic and cellular analysis, existing technologies are limited in their ability to provide spatial information within a tissue sample. In recent years, the research community has fully embraced single-cell solutions as they have delivered unprecedented insights and facilitated novel medical breakthroughs. However, while single-cell technologies continue to evolve and improve, providing insights into cellular makeup and biomarker expression, existing technologies require destruction of the tissue and sacrifice all spatial information. Thus, while significant value has been realized from single-cell analysis, spatial phenotyping promises to be the next-generation biomarker solution aiming to provide an in-depth understanding of biological function and disease pathology through a visual and computable map of histological patterns.

Translational and clinical researchers are facing a growing need in areas such as immuno-oncology for additional biomarkers that can accurately predict a patient's response to therapy. The rapid growth of immuno-therapies and the heightened demand for more predictive biomarkers creates a strong market opportunity for spatial biology platforms. A recent study in JAMA Oncology highlighted the superior predictive power of spatial phenotyping over current methods such as NGS, RNA analysis and standard histology and tissue staining approaches.

With growing adoption and utilization, spatial phenotyping has the potential to change the course of clinical decision making. Our solutions' ability to address the full continuum from discovery through translational and clinical research is driving a deeper understanding of the onset, advancement and treatment of complex diseases such as cancer, autoimmune disorders, neurological disorders, infectious disease, developmental biology, hematological conditions, and many more. Both our CODEX and Phenoptics platforms offer seamless and integrated workflow solutions for customers, including supporting both fresh frozen and formalin-fixed paraffin-embedded ("FFPE") tissue, automated sample processing, scalability and comprehensive data analysis and software solutions, all supported by our dedicated field and applications support teams. For discovery researchers in academia and biopharma, our CODEX platform and proprietary reagents provide a next-generation tissue imaging solution with ultra-high parameter multiplexing that is practical, automated and simple enough to enable every researcher to leverage the power of spatial biology. For translational and clinical researchers, we believe our Phenoptics platform delivers a fully automated end-to-end spatial phenotyping solution with the robustness, throughput, scale and reproducibility required for clinical studies. All of our products and solutions sold today are for research use only. For future applications in clinical markets, our products may require FDA approval.

Risk Factors

Investing in our common stock involves risks, which are discussed more fully under "Risk Factors." You should carefully consider all the information in this prospectus, including under "Risk Factors," before making an investment decision. These risks include, but are not limited to, risks relating to:

- our history of losses, and expectation to incur significant expenses and continuing losses for the foreseeable future;
- our ability to manage and grow our business by expanding our sales to existing customers or introducing our products and technologies to new customers;
- our dependency upon the biopharmaceutical industry's willingness to adopt our spatial biology platforms;
- the impact of health epidemics, including the COVID-19 pandemic, on our business and the actions we may take in response thereto;
- developments and projections relating to our competitors and industry;
- increases in costs, disruption of supply or shortage of raw materials, which could harm our business;
- our expectations about how market trends will affect our TAM;
- our dependence on our licenses with Stanford for our CODEX product and PKI, Cambridge Research & Instrumentation, Inc., or Cambridge Research, and VisEn Medical Inc. for our Phenoptics products and our and our licensors' ability to obtain, establish, maintain, protect and enforce intellectual property and proprietary protection for our products and technologies and to avoid claims of infringement, misappropriation or other violation of third-party intellectual property and proprietary rights;
- our ability to hire and retain key management, scientific and engineering personnel and to manage our future growth effectively;
- our ability to obtain additional financing in this or future offerings;
- the volatility of the trading price of our common stock;
- evolving regulations and the potential for unfavorable changes to, or failure by us to comply with, these regulations, which could harm our business and operating results;
- our expectations regarding the period during which we qualify as an emerging growth company under the JOBS Act; and
- our expectations regarding use of proceeds from this offering.

Implications of Being an Emerging Growth Company and Smaller Reporting Company

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. An emerging growth company may take advantage of relief from certain reporting requirements and other burdens that are otherwise applicable generally to public companies. These provisions include:

- Reduced obligations with respect to financial data, including presenting only two years of audited financial statements and only two years of selected financial data;
- An exemption from compliance with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act;
- Reduced disclosure about our executive compensation arrangements in our periodic reports, proxy statements, and registration statements; and
- Exemptions from the requirements of holding non-binding advisory votes on executive compensation or golden parachute arrangements.

In addition, under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We intend to avail ourselves of this exemption from new or revised accounting standards, and accordingly, we will not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies or that have opted out of using such extended transition period, which may make comparison of our financial statements with those of other public companies more difficult. We may take advantage of these reporting exemptions until we no longer qualify as an emerging growth company or, with respect to adoption of certain new or revised accounting standards, until we irrevocably elect to opt out of using the extended transition period.

We will remain an emerging growth company until the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of $1.07 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the closing of this offering; (iii) the date on which we have issued more than $1 billion in nonconvertible debt during the previous three years; and (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC. We may choose to take advantage of some but not all of these reduced reporting burdens.

We are also a "smaller reporting company," meaning that the market value of our stock held by non-affiliates plus the proposed aggregate amount of gross proceeds to us as a result of this offering is less than $700 million and our annual revenue is less than $100 million during the most recently completed fiscal year. We may continue to be a smaller reporting company after this offering if either (i) the market value of our stock held by non-affiliates is less than $250 million or (ii) our annual revenue is less than $100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700 million. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

Corporate information

Akoya Biosciences, Inc. was incorporated as a Delaware corporation on November 13, 2015. Our principal executive offices are located at 100 Campus Drive, 6th Floor, Marlborough, Massachusetts 01752, and our telephone number is (855) 896-8401. Our website address is www.akoyabio.com. Information contained on, or that can be accessed through, our website is not part of and is not incorporated by reference into this prospectus, and you should not consider information on our website to be part of this prospectus.

The Offering

Common stock offered by us	shares
Common stock to be outstanding immediately after this offering	shares (or shares if the underwriters exercise in full their option to purchase additional shares)
Underwriters' option to purchase additional shares of common stock offered in this offering	We have granted the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to an additional shares from us.
Use of proceeds	We estimate that the net proceeds to us from the sale of shares of our common stock in this offering will be approximately $ million (or approximately $ million if the underwriters' option to purchase additional shares is exercised in full) based upon the assumed initial public offering price of $ per share, which is the midpoint of the estimated offering price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. The principal purposes of this offering are to increase our capitalization and financial flexibility, create a public market for our common stock and thereby enable access to the public equity markets for us and our stockholders. We expect to use the net proceeds from this offering for general corporate purposes, which may include, but are not limited to, expanding our commercial operations, funding our research and development efforts to advance our platform of technologies, capital expenditures and funding working capital. See "Use of Proceeds" for a more complete description of the intended use of proceeds from this offering.
Proposed Nasdaq trading symbol	"AKYA"
Risk factors	You should read the section entitled "Risk Factors" and the other information included elsewhere in this prospectus for a discussion of some of the risks and uncertainties you should carefully consider before deciding to invest in our common stock.

The total number of shares of our common stock that will be outstanding after this offering includes 67,824,846 shares and excludes, as of December 31, 2020:

- 9,134,929 shares of common stock issuable upon the exercise of outstanding stock options, having a weighted average exercise price of $0.22 per share;
- 368,779 shares of our common stock issuable upon the exercise of certain outstanding convertible preferred stock warrants, having an exercise price of $1.53 per share, and are expected remain unexercised after the completion of this offering;
- shares of common stock reserved for future issuance under our 2021 Equity Incentive Plan (the "2021 Plan") (which number includes shares remaining available for issuance under our 2015 Equity Incentive Plan, or the 2015 Plan, which will become available for issuance under the 2021 Plan upon its effectiveness); and

- shares of common stock reserved for future issuance under our 2021 Employee Stock Purchase Plan, or the ESPP, which will become effective in connection with this offering.

Our 2021 Plan and ESPP provide for annual automatic increases in the number of shares reserved thereunder. See the section titled "Executive Compensation — Equity Incentive Plans" for additional information.

Unless otherwise indicated, this prospectus assumes or gives effect to the following:

- the filing and effectiveness of our amended and restated certificate of incorporation to be effective immediately prior to the closing of this offering, or our Certificate of Incorporation, and the adoption of our amended and restated bylaws to be effective immediately prior to the closing of this offering, or our Bylaws;
- the conversion of all outstanding shares of our Class B common stock on a 1 for 1 basis into 5,973,605 shares of our common stock immediately prior to the closing of this offering;
- the automatic conversion of all outstanding shares of our convertible preferred stock into 61,851,241 shares of our common stock immediately prior to the closing of this offering;
- no exercise of the outstanding options or warrants described above; and
- no exercise by the underwriters of their option to purchase additional shares of our common stock.

Summary Consolidated Financial Data

The following tables set forth a summary of our consolidated financial data for the periods and as of the dates indicated. The summary consolidated statements of operations data for the years ended December 31, 2020 and 2019 are derived from our audited consolidated financial statements and related notes included elsewhere in this prospectus. Our historical results are not necessarily indicative of our future results for any period. You should read this data together with our audited consolidated financial statements and related notes appearing elsewhere in this prospectus and the information under the captions "Selected consolidated financial data" and "Management's discussion and analysis of financial condition and results of operations." The summary financial data included in this section is not intended to replace the consolidated financial statements and related notes included elsewhere in this prospectus.

	Year ended December 31	
($ in thousands, except share and per share data)	**2020**	**2019**
Consolidated statements of operations		
Revenue:		
Product revenue	$ 33,438	$ 36,344
Service and other revenue	9,005	5,892
Total revenue	42,443	42,236
Cost of goods sold:		
Cost of product revenue	12,584	15,447
Cost of and other service revenue	3,951	2,126
Total cost of goods sold	16,535	17,573
Gross profit	25,908	24,663
Operating expenses:		
Selling, general and administrative	23,982	26,351
Research and development	9,603	8,761
Change in fair value of contingent consideration	519	(1,201)
Depreciation and amortization	3,815	3,055
Total operating expenses	37,919	36,966
Loss from operations	(12,011)	(12,303)
Other income (expense):		
Interest expense	(2,723)	(1,881)
Change in fair value of warrant liability	(298)	—
Loss on extinguishment of debt	(1,671)	—
Other income (expense), net	39	(373)
Loss before provision for income taxes	(16,664)	(14,557)
Provision for income taxes	(42)	(194)
Net loss	$ (16,706)	$ (14,751)
Net loss per share attributable to common stockholders, basic and diluted[(1)]	$ (3.94)	$ (3.45)
Weighted-average shares outstanding, basic and diluted[(1)]	5,523,458	5,303,199

(1) See Note 2 and Note 14 to our consolidated financial statements included elsewhere in this prospectus for further details on the calculation of net loss per share attributable to common stockholders, basic and diluted, and the weighted-average shares used to compute net loss per share attributable to common stockholders, basic and diluted.

	As of December 31, 2020		
	Actual	Pro Forma[1]	Pro Forma As Adjusted[2]
		(in thousands)	
Consolidated Balance Sheet Data:			
Cash, cash equivalents, and restricted cash – long term	$ 17,508	$	$
Working capital[3]	11,534		
Total assets	77,660		
Deferred revenue	4,852		
Current portion of long-term debt	1,032		
Long-term debt, net of current portion and debt discount	33,488		
Total redeemable convertible preferred stock	69,107		
Convertible preferred stock	1,253		
Accumulated deficit	(52,280)		
Total stockholders' (deficit) equity	(51,026)	—	—

(1) The pro forma column reflects the automatic conversion of all outstanding shares of our convertible preferred stock as of , 2021 into shares of our common stock immediately prior to the closing of this offering.

(2) The pro forma as adjusted column gives effect to (a) the pro forma adjustments set forth above; (b) the sale and issuance of shares of our common stock offered by us in this offering, based upon an assumed initial public offering price of $ per share, which is the midpoint of the estimated offering price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and estimated offering expenses payable by us; and (c) the repayment of our outstanding $ million of indebtedness under our credit facility. Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share of common stock, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash, cash equivalents, and restricted cash — long term, working capital, total assets and total stockholders' (deficit) equity by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million shares in the number of shares offered by us at the assumed initial public offering price per share would increase (decrease) the pro forma as adjusted amount of each of cash, cash equivalents, and restricted cash — long term, working capital, total assets and total stockholders' (deficit) equity by approximately $ million, assuming that the assumed initial public offering price remains the same and after deducting estimated underwriting discounts and estimated offering expenses payable by us.

(3) Working capital is calculated as current assets less current liabilities. See our consolidated financial statements and related notes included elsewhere in this prospectus for further details regarding our current assets and current liabilities.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information in this prospectus, including the section titled "Management's discussion and analysis of financial condition and results of operations" and our consolidated financial statements and related notes, before making a decision to invest in our common stock. Our business, results of operations, financial condition and prospects could also be harmed by risks and uncertainties that are not presently known to us or that we currently believe are not material. If any of the risks actually occur, our business, platform, reputation, brand, results of operations, financial condition and prospects could be materially and adversely affected. In such event, the market price of our common stock could decline, and you could lose all or part of your investment.

Risks Related to Our Business and Strategy

We have incurred significant losses since inception, we expect to incur losses in the future and we may not be able to generate sufficient revenue to achieve and maintain profitability.

We have incurred significant losses since our inception. For the years ended December 31, 2020 and 2019, we incurred net losses of $16.7 million and $14.8 million, respectively. As of December 31, 2020, we had an accumulated deficit of $52.3 million. We expect that our operating expenses will continue to increase as we grow our business and will also increase as a result of our becoming a public company. Since our inception, we have financed our operations primarily from private placements of our convertible preferred stock, the incurrence of indebtedness, and to a lesser extent, revenue derived from our CODEX and Phenoptics platforms. We have devoted substantially all of our resources to the development and commercialization of our CODEX and Phenoptics platforms and to research and development activities related to advancing and expanding our scientific and technological capabilities. We will need to generate significant additional revenue to achieve and sustain profitability, and even if we achieve profitability, we cannot be sure that we will remain profitable for any substantial period of time. We may never be able to generate sufficient revenue to achieve or sustain profitability and our recent and historical growth should not be considered indicative of our future performance.

Our success depends on our ability to drive adoption of our CODEX and Phenoptics platforms.

Our ability to market and sell our CODEX and Phenoptics platforms and increase awareness of spatial biology technology will depend on a number of factors, including:

- our ability to drive adoption of our platforms and complementary products by academic, government, biopharmaceutical, biotechnology and other institutions;
- our ability to increase awareness of the capabilities of our technology and solutions;
- whether our platforms reliably provide advantages over legacy and other alternative technologies and are perceived by customers to be cost effective;
- prices we charge for a direct purchase of, or other access to, our platforms and complementary products;
- the relative reliability and robustness of our platforms and complementary products as a whole and the components of both;
- our ability to develop new workflows, products, services and solutions for customers;
- the impact of our investments in product innovation and commercial growth;
- negative publicity regarding our or our competitors' products resulting from defects or errors; and
- our ability to further validate our technology through research and accompanying publications.

We cannot assure you that we will be successful in addressing each of these criteria or other criteria that might affect the adoption of our solutions. If we are unsuccessful in achieving and maintaining market acceptance of our solutions and spatial biology technology, our business, financial condition, results of operations and prospects could be adversely affected.

Our revenue has been primarily generated from sales of our CODEX and Phenoptics platforms and reagents. If our products do not continue to gain market acceptance, our revenue could be materially and adversely impacted.

We made our first commercial sale of CODEX in the United States in January 2019 and we began selling Phenoptics in October 2018 following our acquisition of this product line from PKI. We currently generate the majority of our revenue from the sale of our CODEX and Phenoptics platforms, reagents and instrument services. Direct sales of CODEX and Phenoptics platforms and consumables together accounted for 76% and 82% of our revenue for the years ended December 31, 2020 and 2019, respectively. We expect that, for at least the foreseeable future, direct sales of our CODEX and Phenoptics platforms and consumables will continue to account for a substantial portion of our revenue while we develop additional products for our spatial biology platforms. As technologies change in the future for research equipment in general and in spatial biology specifically, we will be expected to upgrade or adapt our products in order to keep up with the latest technology and there can be no assurance we will be able to do so. Our sales expectations are based in part on the assumption that our platforms will continue to gain market acceptance as spatial biology becomes more accepted which will in turn will increase the associated purchases of our consumables. If sales of our platforms fail to materialize so will the related consumable sales and associated revenue. If our CODEX and Phenoptics platforms fail to achieve sufficient market acceptance or sales of our consumables decrease, our revenue could be materially and adversely impacted.

If we fail to enter into new customer relationships or maintain and expand existing relationships, our future operating results would be adversely affected as a general matter.

Our customer base includes academic, government, biopharmaceutical, biotechnology and other institutions. Our success will depend upon our ability to increase our market penetration among these customers and to expand our market by developing and marketing new products and new applications for existing products. As we continue to scale our business, we may find that certain of our products, certain customers or certain markets, including the biopharmaceutical market, may require a dedicated sales force or sales personnel with different experience than those we currently employ. Identifying, recruiting and training additional qualified personnel would require significant time, expense and attention.

Our ability to grow our market penetration in existing markets will also depend on our ability to attract new customers by increasing awareness of the capabilities of our spatial biology technology and solutions. Future revenue growth will also depend on our ability to develop and market new workflows, technologies and solutions to meet our existing customers' evolving needs, as well as our ability to identify new applications and customers for our technology in additional markets. If we are unable to drive new customer conversion to our CODEX and Phenoptics platforms, expand adoption of spatial biology technology into new industries and markets, expand the application of workflows across our customers' value chains, increase the usage and value of our workflows to our customers or develop and monetize proprietary biological assets, then our business, financial condition, results of operations and prospects could be adversely affected.

We cannot assure investors that we will be able to further penetrate our existing market or that the market will be able to sustain our current and future product offerings. Any failure to increase penetration in our existing markets would adversely affect our ability to improve our operating results.

Our operating results have fluctuated significantly in the past and may fluctuate significantly in the future, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations.

Our quarterly and annual operating results have fluctuated significantly in the past and may fluctuate significantly in the future, which makes it difficult for us to predict our future operating results. These fluctuations may occur due to a variety of factors, many of which are outside of our control, including, but not limited to:

- the level of demand for our platforms, consumables and technologies, which may vary significantly;
- the length of time of the sales cycle for purchases of our systems, including lead time needed to develop custom workflows or to manufacture component parts;

- the timing and cost of, and level of investment in, research, development, regulatory approval and commercialization activities relating to our products, which may change from time to time;
- the start and completion of projects in which our solutions are utilized;
- the relative reliability and robustness of our platforms, including our technologies;
- the introduction of new products or product enhancements by us or others in our industry;
- expenditures that we may incur to acquire, develop or commercialize additional products and technologies;
- changes in governmental regulations or in the status of our regulatory approvals or applications;
- future accounting pronouncements or changes in our accounting policies; and
- general market conditions and other factors, including factors unrelated to our operating performance or the operating performance of our competitors.

The effect of one of the factors discussed above, or the cumulative effects of a combination of factors discussed above, could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Investors should not rely on our past results as an indication of our future performance.

Our limited operating history makes it difficult to evaluate our future prospects and the risks and challenges we may encounter.

We completed our first commercial Phenoptics sale in October 2018 and CODEX sale in January 2019. Our limited operating history and evolving business make it difficult to evaluate our future prospects and the risks and challenges we may encounter and may increase the risk that we will not grow at or near our expected rates. In addition, we operate in highly competitive markets characterized by rapid technological advances and our business has, and we expect it to continue, to evolve over time to remain competitive.

If we fail to address the risks and difficulties that we face, including those described elsewhere in this “Risk Factors” section, our business, financial condition, results of operations and prospects could be adversely affected. We have encountered in the past, and will encounter in the future, risks and uncertainties frequently experienced by growing companies with limited operating histories in rapidly changing industries. If our assumptions regarding these risks and uncertainties, which we use to plan and operate our business, are incorrect or change, or if we do not address these risks successfully, our results of operations could differ materially from our expectations and our business, financial condition, results of operations and prospects could be adversely affected.

Acquisitions could disrupt our business, cause dilution to our stockholders and otherwise harm our business.

We have and may continue to acquire other businesses or assets to add products or technologies as well as pursue technology licenses or investments in complementary businesses. In 2018, we acquired our Phenoptics platform from PKI. We believe we are successfully integrating the technologies acquired from PKI into our business, but the long-term success of the acquisition is not guaranteed. For example, following the acquisition, PKI served as our sole distributor of our Phenoptics platform for the APAC and EMEA regions in 2019 pursuant to a transition services agreement and accounted for approximately 30% of our revenue for the year ended December 31, 2019. This transaction and any future transactions could be material to our financial condition and operating results and expose us to many risks, including:

- disruption in our relationships with customers, distributors, manufacturers or suppliers as a result of such a transaction;
- unanticipated liabilities related to acquired companies, including liabilities related to acquired intellectual property or litigation relating thereto;
- difficulties integrating acquired personnel, technologies and operations into our existing business;
- diversion of management time and focus from operating our business;

- failure to realize anticipated benefits or synergies from such a transaction;
- increases in our expenses and reductions in our cash available for operations and other uses; and
- possible write-offs or impairment charges relating to acquired businesses.

Even if we identify a strategic transaction that we wish to pursue, we may be prohibited from consummating such transaction due to the terms of our existing or any future indebtedness. If we were to pursue an acquisition that is not permitted by our existing indebtedness, we would be required to seek a waiver from the lender and we cannot assure investors that the lender would grant such a waiver.

Future acquisitions or dispositions could result in potentially dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities, amortization expenses or write-offs of goodwill, any of which could materially impact our financial results or operations.

If our existing and new products fail to achieve and sustain sufficient scientific acceptance, we will not generate expected revenue and our prospects may be harmed.

The life sciences community is comprised of a small number of early adopters and key opinion leaders who significantly influence the rest of the community. The success of life sciences products is due, in large part, to acceptance by the scientific community and their adoption of certain products as best practice in the applicable field of research. The current system of academic and scientific research views publishing in a peer-reviewed journal as a measure of success. In such journal publications, the researchers will describe, not only their discoveries, but also the methods and typically the products used to fuel such discoveries. Mentions in peer-reviewed journal publications is a good barometer for the general acceptance of our products as best practices. Ensuring that early adopters and key opinion leaders publish research involving the use of our products is critical to ensuring our products gain widespread acceptance and market growth. Continuing to maintain good relationships with such key opinion leaders is vital to growing our market. The number of times our products were mentioned in peer-reviewed publications has increased significantly in the last two years. During this time our revenue has also increased significantly. We cannot assure investors that our products will continue to be mentioned in peer-reviewed articles with any frequency or that any new products that we introduce in the future will be mentioned in peer-reviewed articles. If too few researchers describe the use of our products, too many researchers shift to a competing product and publish research outlining their use of that product or too many researchers negatively describe the use of our products in publications, it may drive existing and potential customers away from our products, which could harm our operating results.

We generally recognize revenue from first-year warranty, extended warranty and service contracts over the contract term, and changes in sales of such contracts may not be immediately reflected in our operating results.

Our instruments are sold with a twelve month warranty. We offer our customers the option to purchase extended warranty and service programs for regular system maintenance and system optimization on a fixed fee basis. We generally recognize revenue from our first-year warranty, extended warranty and service contracts ratably over the contract term, which is typically twelve months, which could in some cases be subject to an early termination right. Revenue from our first-year warranty, extended warranty and service contracts accounted for 13% and 10% of our revenue for the years ended December 31, 2020 and 2019, respectively. A portion of the revenue we report in each quarter is derived from the recognition of deferred revenue relating to extended warranty and service contracts entered into during previous quarters. Consequently, a decline in new or renewed extended warranty and service contracts by our customers in any one quarter may not be immediately reflected in our revenue for that quarter. Such a decline, however, will negatively affect our revenue in future quarters. Accordingly, the effect of significant downturns in sales and market acceptance of our services and potential changes in our rate of renewals may not be fully reflected in our operating results until future periods.

If we were to be sued for product liability, we could face substantial liabilities that exceed our resources.

The marketing, sale and use of our products could lead to the filing of product liability claims were someone to allege that our products identified inaccurate or incomplete information regarding the tissues

analyzed or otherwise failed to perform as designed. We may also be subject to liability for errors in a misunderstanding of or inappropriate reliance upon the information we provide in the ordinary course of our business activities. A product liability claim could result in substantial damages and be costly and time-consuming for us to defend.

We maintain product liability insurance, but this insurance may not fully protect us from the financial impact of defending against product liability claims. Any product liability claim brought against us, with or without merit, could increase our insurance rates or prevent us from securing insurance coverage in the future. Additionally, any product liability lawsuit could damage our reputation, or cause current customers to terminate existing agreements and potential clinical partners to seek other partners, any of which could impact our business, financial condition, results of operations and prospects.

Our business, financial condition, results of operations and prospects may be harmed if our customers discontinue or spend less on research, development and production and other scientific endeavors.

Our customers include biopharmaceutical companies and academic and clinical institutions. Many factors, including public policy spending priorities, available resources and internal budgets and product and economic cycles, have a significant effect on the capital spending policies of these entities. Fluctuations in the research and development budgets of our customers could have a significant effect on the demand for our products. Our customers determine their research and development budgets based on several factors, including the need to develop new products, continued availability of governmental and other funding, competition and the general availability of resources. If their research and development budgets are reduced, the impact could adversely affect our business, financial condition, results of operations and prospects.

If we are unable to support demand for the CODEX and Phenoptics platforms and consumables, and for our future product offerings, including ensuring that we have adequate capacity to meet increased demand, or if we are unable to successfully manage our anticipated growth, our business could suffer.

As the number of customers using our CODEX and Phenoptics platforms and consumables grows and our volume of installed instruments increases, we will need to continue to increase our capacity for customer service and support and for billing and general process improvements and to expand our internal quality assurance programs. We will also need to purchase additional equipment, some of which can take several months or more to procure, setup and validate, and increase our personnel levels to meet increased demand. There is no assurance that any of these increases in scale, expansion of personnel, equipment, software and computing capacities or process enhancements will be successfully implemented, or that we will have adequate space, including in our laboratory facility, to accommodate such required expansion.

As we commercialize additional products, we will need to incorporate new equipment, implement new technology systems and laboratory processes, and hire new personnel, possibly with supplemental or different qualifications as compared to our current personnel. Failure to manage this growth or transition could result in turnaround time delays, higher product costs, declining product quality, deteriorating customer service and slower responses to competitive challenges. A failure in any one of these areas could make it difficult for us to meet market expectations for our products and could damage our reputation and the prospects for our business.

The sizes of the markets for our solutions may be smaller than estimated and new market opportunities may not develop as quickly as we expect, or at all, limiting our ability to successfully sell our solutions.

The market for spatial biology products is new and evolving, making it difficult to predict with any accuracy the sizes of the markets for our current and future solutions. Our estimates of the annual TAM for our current and future solutions are based on a number of internal and third-party estimates and assumptions. In particular, our estimates are based on our expectations that: (a) researchers in the market for certain life sciences research tools and technologies will view our solutions as competitive alternatives to, or better options than, such existing tools and technologies; and (b) researchers who already own such existing tools and technologies will recognize the ability of our solutions to complement, enhance and enable new applications of their current tools and technologies and find the value proposition offered by our solutions convincing enough to purchase our solutions in addition to the tools and technologies they already own. Underlying each of these expectations are a number of estimates and assumptions, including the

assumption that government or other sources of funding will continue to be available to life sciences researchers at times and in amounts necessary to allow them to purchaser our solutions.

In addition, our growth strategy involves launching new products and expanding sales of existing products into new markets in which we have limited or no experience. Sales of new or existing products into new market opportunities may take several years to develop and mature and we cannot be certain that these market opportunities will develop as we expect. For example, new life sciences technology is often not adopted by the relevant market until a sufficient amount of research conducted using such technology has been published in peer-reviewed publications. Because there can be a considerable delay between the launch of a new life sciences product and publication of research using such product, new life sciences products do not generally contribute a meaningful amount of revenue in the year they are introduced. In certain markets, such as the biopharmaceutical market, new life sciences technology, even if sufficiently covered in peer-reviewed publications, may not be adopted until the consistency and accuracy of such technology, method or device has been proven. As a result, the sizes of the annual TAM for new markets and new products are even more difficult to predict.

While we believe our assumptions and the data underlying our estimates of the total annual addressable market for our solutions are reasonable, these assumptions and estimates may not be correct and the conditions supporting our assumptions or estimates, or those underlying the third-party data we have used, may change at any time, thereby reducing the accuracy of our estimates. As a result, our estimates of the annual TAM for our solutions may be incorrect.

The future growth of the market for our current and future products depends on many factors beyond our control, including recognition and acceptance of our instruments and products by the scientific community as best practice and the growth, prevalence and costs of competing products and solutions. Such recognition and acceptance may not occur in the near term, or at all. If the markets for our current and future solutions are smaller than estimated or do not develop as we expect, our growth may be limited and our business, financial condition and operational results may be adversely affected.

If we fail to offer high quality customer service, our business and reputation could suffer.

We differentiate ourselves from our competition through our commitment to an exceptional customer experience. Accordingly, high quality customer service is important for the growth of our business and any failure to maintain such standards of customer service, or a related market perception, could affect our ability to sell products to existing and prospective customers. Additionally, we believe our customer service team has a positive influence on recurring consumables revenue. Providing an exceptional customer experience requires significant time and resources from our customer service team. Therefore, failure to scale our customer service organization adequately may adversely impact our business results and financial condition.

The number of our customers has grown significantly and such growth, as well as any future growth, will put additional pressure on our customer service organization. We may be unable to hire qualified staff quickly enough or to the extent necessary to accommodate increases in demand.

In addition, as we continue to grow our operations and reach a global customer base, we need to be able to provide efficient customer service that meets our customers' needs globally at scale. In geographies where we sell through distributors, we rely on those distributors to provide customer service. If these third-party distributors do not provide a high-quality customer experience, our business operations and reputation may suffer.

Our management uses certain key business metrics to evaluate our business, measure our performance, identify trends affecting our business, formulate financial projections and make strategic decisions and such metrics may not accurately reflect all of the aspects of our business needed to make such evaluations and decisions, in particular as our business continues to grow.

In addition to our consolidated financial results, our management regularly reviews a number of operating and financial metrics, including various revenue metrics and cash flows to evaluate our business, measure our performance, identify trends affecting our business, formulate financial projections and make strategic decisions. We believe that these metrics are representative of our current business; however, these

metrics may not accurately reflect all aspects of our business and we anticipate that these metrics may change or may be substituted for additional or different metrics as our business grows and as we introduce new products. For example, we expect that our expansion into new markets and adoption by new customers who may not have the same financial resources to devote to consumable purchases as our existing customer base could adversely impact our revenue metrics. If our management fails to review other relevant information or change or substitute the key business metrics they review as our business grows and we introduce new products, their ability to accurately formulate financial projections and make strategic decisions may be compromised and our business, financial results and future growth prospects may be adversely impacted.

We will need to raise additional capital to fund our existing operations, improve our platform or develop and commercialize new products and technologies, or expand our operations.

Based on our current business plan, we believe the net proceeds from this offering, together with our current cash and cash equivalents and the remaining $5.0 million available to be drawn under our credit facility, will be sufficient to meet our anticipated cash requirements for at least the next 12 months from the date of this prospectus. If our available cash resources, net proceeds from this offering and anticipated cash flow from operations are insufficient to satisfy our liquidity requirements including because of lower demand for our products or the realization of other risks described in this prospectus, we may be required to raise additional capital prior to such time through issuances of equity or convertible debt securities, entrance into a credit facility or another form of third party funding or seek other debt financing.

In any event, we may consider raising additional capital in the future to expand our business, to pursue strategic investments, to take advantage of financing opportunities or for other reasons, including to:

- increase our sales and marketing efforts to drive market adoption of our CODEX and Phenoptics platforms and consumables and address competitive developments;
- fund development and marketing efforts of products from our programs or any other future products;
- expand our technologies into additional markets;
- acquire, license or invest in additional intellectual property and technologies;
- acquire or invest in complementary businesses or assets; and
- finance capital expenditures and general and administrative expenses.

Our present and future funding requirements will depend on many factors, including:

- our ability to achieve revenue growth;
- our rate of progress in launching and commercializing new products, and the cost of the sales and marketing activities associated with, establishing adoption of our CODEX and Phenoptics platforms and consumables;
- our rate of progress in, and cost of research and development activities associated with, products in research and development;
- the effect of competing technological and market developments;
- costs related to domestic and international expansion; and
- the potential cost of and delays in product development as a result of any regulatory oversight applicable to our products.

The various ways we could raise additional capital carry potential risks. If we raise funds by issuing equity securities, dilution to our stockholders could result. Any preferred equity securities issued also could provide for rights, preferences or privileges senior to those of holders of our common stock. If we raise funds by issuing debt securities, those debt securities would have rights, preferences and privileges senior to those of holders of our common stock. The terms of debt securities issued or borrowings pursuant to a credit agreement could impose significant restrictions on our operations. If we raise funds through collaborations

or licensing arrangements, we might be required to relinquish significant rights to our platform technologies or products or grant licenses on terms that are not favorable to us.

If we are unable to obtain adequate financing or financing on terms satisfactory to us, if we require it, our ability to continue to pursue our business objectives and to respond to business opportunities, challenges, or unforeseen circumstances could be significantly limited, and could have a material adverse effect on our business, financial condition, results of operations and prospects.

Our Term Loan contains covenants, which restrict our operating activities, and we may be required to repay the outstanding indebtedness in an event of default, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

In October 2020, we entered into a credit and security agreement, or Term Loan, with Midcap Financial Trust, or the Lender, pursuant to which the Lender agreed to provide us a $37.5 million credit facility. The Company has drawn has drawn $32.5 million as of December 31, 2020 and the remaining $5.0 million not yet drawn on the term loan is available to be drawn from March 31, 2021, through June 30, 2021, subject to our compliance with the covenants contained in our Term Loan. The loan matures in October 2025. Until we have repaid such indebtedness, the Term Loan subjects us to various customary covenants, including requirements as to financial reporting, liquidity ratios and insurance and restrictions on our ability to dispose of our business or property, to change our line of business, to liquidate or dissolve, to enter into any change in control transaction, to merge or consolidate with any other entity or to acquire all or substantially all the capital stock or property of another entity, to incur additional indebtedness, to incur liens on our property, to pay any dividends or make other distributions on capital stock other than dividends payable solely in capital stock, to redeem capital stock, to enter into certain in-bound licensing agreements, to engage in transactions with affiliates, and to encumber our intellectual property. In particular, we are subject to a minimum revenue financial covenant measuring our last twelve months trailing revenue, tested on a monthly basis. Our business may be adversely affected by these restrictions on our ability to operate our business.

We are permitted to make interest only payments on the loan facility through October 2023, at which time principal payments begin. However, we may be required to repay the outstanding indebtedness under the loan facility if an event of default occurs under the Term Loan. An event of default will occur if, among other things, we fail to make required payments under the Term Loan; we breach any of our covenants under the loan and security agreement, subject to specified cure periods with respect to certain breaches; the Lender determines that a material adverse change (as defined in the loan and security agreement) has occurred; we or our assets become subject to certain legal proceedings, such as bankruptcy proceedings; we are unable to pay our debts as they become due; or we default on contracts with third parties which would permit the third party to accelerate the maturity of such indebtedness or that could have a material adverse change on us. We may not have enough available cash or be able to raise additional funds through equity or debt financings to repay such indebtedness at the time any such event of default occurs. In such a case, we may be required to delay, limit, reduce or terminate our product development or operations or grant to others rights to develop and market products that we would otherwise prefer to develop and market ourselves. The Lender could also exercise its rights as secured lender to take possession of and to dispose of the collateral securing the term loan, which collateral includes substantially all of our property. Our business, financial condition, results of operations and prospects could be materially adversely affected as a result of any of these events.

Our actual operating results may differ significantly from any operating guidance we may provide.

From time to time, we may release guidance in our quarterly or annual earnings conference calls, quarterly or annual earnings releases, or otherwise, regarding our future performance that represents our management's estimates as of the date of release. This guidance, which will include forward-looking statements, will be based on projections prepared by our management. These projections may not be prepared with a view toward compliance with published guidelines of the American Institute of Certified Public Accountants, or AICPA, and Public Company Accounting Oversight Board, or PCAOB, and neither our registered public accountants nor any other independent expert or outside party compiles or examines the projections. Accordingly, no such person will express any opinion or any other form of assurance with respect to the projections.

Projections are based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond our control and are based upon specific assumptions with respect to future business decisions, some of which will change. The principal reason that we may release guidance is to provide a basis for our management to discuss our business outlook with analysts and investors. We do not accept any responsibility for any projections or reports published by any such third parties.

Guidance is necessarily speculative in nature, and it can be expected that some or all of the assumptions underlying the guidance furnished by us will not materialize or will vary significantly from actual results.

Accordingly, our guidance is only an estimate of what management believes is realizable as of the date of release. Actual results may vary from our guidance and the variations may be material.

Any failure to successfully implement our operating strategy or the occurrence of any of the events or circumstances set forth in this "Risk Factors" section in this prospectus could result in actual operating results being different from our guidance, and the differences may be adverse and material.

We received economic stimulus funding under the CARES Act. If such funding is not forgiven and is required to be repaid pursuant to the terms of the CARES Act or related guidance, our business, results of operations, and financial condition may be materially and adversely affected.

Section 1102 of the CARES Act established the Paycheck Protection Program, or PPP, which provided additional funding for small businesses, as defined by the Small Business Administration, or SBA, to keep workers employed during the COVID-19 pandemic. In April 2020, we applied for and received PPP funding from Park State Bank in the aggregate amount of $2.48 million. Proceeds can only be used for specified covered purposes including payroll, mortgage interest, rent and utilities in accordance with the CARES Act. The PPP loan has a two-year term and bears interest at a rate of 1.0% per annum. To the extent proceeds are used for these covered purposes, some or all of the related principal balances may be forgiven. We spent the proceeds on covered purposes. We have completed our forgiveness application reflecting our use of all of our PPP loan proceeds and submitted this application, together with any supporting documentation, to Park State Bank.

We cannot provide assurance that the original principal and interest amounts under the PPP loan will be forgiven. If it is determined that our PPP loans did not comply with requirements after receiving our PPP loan, we may be required to repay the PPP loan in its entirety and/or be subject to additional penalties (potentially including civil and criminal fines and penalties) and adverse publicity, which could have a material adverse effect on our business, results of operations, and financial condition. Additionally, the SBA may audit our PPP loan. Should we be audited or reviewed by federal or state regulatory authorities, such audit or review could result in the diversion of management's time and attention, generation of negative publicity, the incurrence of additional legal and reputational costs, and potential exposure to civil and criminal liability. Any of these events could have a material adverse effect on our business, results of operations, and financial condition.

Our market is highly competitive, and if we cannot compete successfully with our competitors, we may be unable to increase or sustain our revenue, or achieve and sustain profitability.

We face significant competition in our market. We currently compete with both established and early stage life sciences technology companies that design, manufacture and market products and software for, among other applications, genomics, tissue analysis, spatial analysis and immunology, and/or provide services related to the same. Growing understanding of the importance of spatial biology information is leading to more companies offering services related to collecting such information. Potential competitors within our space include 10x Genomics, Nanostring Technologies and Fluidigm, among others. In addition, our customers may also elect to develop their workflows on legacy systems rather than our platforms and may decide to stop using our platforms.

Our competitors and potential competitors may enjoy a number of competitive advantages over us, including:

- longer operating histories;

- larger customer bases;
- greater brand recognition and market penetration;
- greater financial resources;
- greater technological and research and development resources;
- more expansive intellectual property and proprietary rights; and
- larger commercial organizations and manufacturing organizations.

As a result, our competitors and potential competitors may be able to respond more quickly to changes in customer requirements, devote greater resources to the development, promotion and sale of their products than we can or sell their products, or offer services competitive with our platforms, consumables and services at prices designed to win significant levels of market share. We may not be able to compete effectively against these organizations.

In addition, competitors may be acquired by, receive investments from or enter into other commercial relationships with larger, well-established and well-financed companies. Certain of our competitors may be able to secure key inputs from vendors on more favorable terms, devote greater resources to marketing and promotional campaigns, adopt more aggressive pricing policies and devote substantially more resources to product development than we can. If we are unable to compete successfully against current and future competitors, we may be unable to increase market adoption and sales of our platform, which could prevent us from increasing our revenue or achieving profitability.

We must develop new products, adapt to rapid and significant technological change and respond to introductions of new products by competitors to remain competitive.

We sell our products in industries that are characterized by significant enhancements and evolving industry standards. As a result, our customers' needs are rapidly evolving. If we do not appropriately innovate and invest in new products and technologies, our offerings may become less desirable in the markets we serve, and our customers could move to new technologies offered by our competitors or make products themselves. Though we believe customers in our markets display a significant amount of loyalty to their supplier of a particular product, we also believe that because of the initial time investment required by many of our customers to reach a purchasing decision for a new product, it may be difficult to regain that customer once the customer purchases a product from a competitor. Without the timely introduction of new products, services and enhancements, our offerings will likely become less competitive over time, in which case our competitive position and operating results could suffer. Accordingly, we focus significant efforts and resources on the development and identification of new technologies, products and markets to further broaden our offerings. To the extent we fail to timely introduce new and innovative products or services, adequately predict our customers' needs or fail to obtain desired levels of market acceptance, our business may suffer and our operating results could be adversely affected.

We may be unable to manage our future growth effectively, which could make it difficult to execute our business strategy.

Since our inception in 2015, we have experienced rapid growth and anticipate further growth in our business operations. Our growth between 2015 and 2020 has required significant time and attention from our management, and placed strains on our operational and manufacturing systems and processes, financial systems and internal controls and other aspects of our business. We expect to continue to increase headcount and to hire more specialized personnel in the future as we grow our business. We will need to continue to hire, train and manage additional qualified scientists, engineers, laboratory personnel, client and account services personnel and sales and marketing staff and improve and maintain our technology to properly manage our growth. We may also need to hire, train and manage individuals with expertise that is separate, supplemental or different from expertise that we currently have, and accordingly we may not be successful in hiring, training and managing such individuals. If our new hires perform poorly, if we are unsuccessful in hiring, training, managing and integrating these new employees, or if we are not successful in retaining our existing employees, our business may be harmed.

Developing and launching new products and innovating and improving our existing products have required us to hire and retain additional scientific, engineering, sales and marketing, software, manufacturing, distribution and quality assurance personnel. As a result, we have experienced rapid headcount growth since our inception in 2015 with 169 employees as of December 31, 2020. As we have grown, our employees have become more geographically dispersed. We currently serve customers located in more than 35 countries and plan to continue to expand to new international jurisdictions as part of our growth strategy, which will lead to increased dispersion of our employees, including sales employees and employees who are in our service and support groups. Moreover, we expect that we will need to hire additional accounting, finance and other personnel in connection with our becoming, and our efforts to comply with the requirements of being, a public company. Once public, our management and other personnel will need to devote a substantial amount of time towards maintaining compliance with these requirements. We may face challenges integrating, developing and motivating our rapidly growing and increasingly dispersed employee base.

We may not be able to maintain the quality, reliability or robustness of our platform, or the expected turnaround times of our services and support, or to satisfy customer demand as it grows. Our ability to manage our growth properly will require us to continue to improve our operational, financial and management controls, as well as our reporting systems and procedures. To effectively manage our growth, we must continue to improve our operational and manufacturing systems and processes, our financial systems and internal controls and other aspects of our business and continue to effectively expand, train and manage our personnel. The time and resources required to improve our existing systems and procedures, implement new systems and procedures and to adequately staff such existing and new systems and procedures is uncertain, and failure to complete this in a timely and efficient manner could adversely affect our operations and negatively impact our business and financial results.

We have limited experience in marketing and sales, and if we are unable to expand our marketing and sales organization to adequately address our customers' needs, our business may be adversely affected.

We have limited experience in marketing and selling our products. We may not be able to market, sell or distribute our current products, or future products that we may develop, effectively enough to support our planned growth.

Competition for employees capable of selling expensive instruments within the pharmaceutical and biotechnology industries is intense. We may not be able to attract and retain personnel or be able to build an efficient and effective sales organization, which could negatively impact sales and market acceptance of our products and limit our revenue growth and potential profitability. In addition, the time and cost of establishing a specialized sales, marketing and service force for a particular product or service may be difficult to justify in light of the revenue generated or projected.

Our expected future growth will impose significant added responsibilities on members of management, including the need to identify, recruit, maintain and integrate additional employees. Our future financial performance and our ability to commercialize our products and to compete effectively will depend, in part, on our ability to manage this potential future growth effectively, without compromising quality.

We rely on distributors for the sale of our products in certain countries outside of the United States, in some cases, in addition to direct sales in such countries. We exert limited control over these distributors under our agreements with them, and if their sales and marketing efforts for our products in the region are not successful, our business would be materially and adversely affected. Locating, qualifying and engaging distribution partners with local industry experience and knowledge will be necessary in at least the short to mid-term to effectively market and sell our platform in certain countries outside the United States. We may not be successful in finding, attracting and retaining distribution partners, or we may not be able to enter into such arrangements on favorable terms. Even if we are successful in identifying distributors, such distributors may engage in sales practices that violate local laws or our internal policies. Furthermore, sales practices utilized by any such distribution parties that are locally acceptable may not comply with sales practices standards required under U.S. laws that apply to us, which could create additional compliance risk. If our sales and marketing efforts by us or our distributors are not successful outside the United States, we may not achieve significant market acceptance for our products outside the United States, which would materially and adversely impact our business, financial condition, results of operations and prospects.

The loss of any member of our senior management team or our inability to attract and retain highly skilled scientists, engineers and salespeople could adversely affect our business.

Our success depends on the skills, experience and performance of key members of our senior management team, including Brian McKelligon, our Chief Executive Officer. The individual and collective efforts of these employees will be important as we continue to develop our platforms and additional products, and as we expand our commercial activities. The loss or incapacity of existing members of our executive management team could adversely affect our operations if we experience difficulties in hiring qualified successors. Our executive officers are at-will employees, and we cannot guarantee their retention for any period of time. We do not maintain "key person" insurance on any of our employees.

Our research and development programs and laboratory operations depend on our ability to attract and retain highly skilled scientists and engineers. We may not be able to attract or retain qualified scientists and engineers in the future due to the competition for qualified personnel among life sciences businesses. We also face competition from universities and public and private research institutions in recruiting and retaining highly qualified scientific and engineering personnel. We may have difficulties locating, recruiting or retaining qualified sales people. Recruiting and retention difficulties can limit our ability to support our research and development and sales programs. All of our employees are at-will, which means that either we or the employee may terminate their employment at any time.

Due to the significant resources required to enable access in new markets, we must make strategic and operational decisions to prioritize certain markets, technology offerings or partnerships. We may expend our resources to access markets, develop technologies or form certain partnerships that do not yield meaningful revenue or we may fail to capitalize on markets, technologies or partnerships that may be more profitable or with a greater potential for success.

We believe our platforms have potential applications across a wide range of markets and we have targeted certain markets in which we believe our technology has significant advantages, or for which we believe we have a higher probability of success or revenue opportunity or for which the path to commercialize products and realizing or achieving revenue is shorter. We seek to maintain a process of prioritization and resource allocation among our programs to maintain a balance between advancing near-term opportunities and exploring additional markets for our technology. However, due to the significant resources required for the development of workflows for new markets, we must make decisions on which markets to pursue and the amount of resources to allocate to each. Our decisions concerning the allocation of research, development, collaboration, management and financial resources toward particular markets or workflows may not lead to the development of any viable product and may divert resources away from better opportunities. Similarly, our potential decisions to delay, terminate or collaborate with third parties in respect of certain markets may subsequently also prove to be suboptimal and could cause us to miss valuable opportunities. In particular, if we are unable to develop additional relevant workflows for markets such as antibody therapeutics, cell therapy or the synthetic biology market it could slow or stop our business growth and negatively impact our business, financial condition, results of operations and prospects.

If our operating facilities, including those of our third party manufacturers, become damaged or inoperable, our ability to conduct and pursue our research and development efforts and manufacture our products may be jeopardized.

We currently derive the majority of our revenue based upon scientific and engineering research and development conducted at two facilities located in California and Massachusetts and from products manufactured by our third party manufacturers. Our facilities and equipment, and that of our third party manufacturers, could be harmed or rendered inoperable or inaccessible by natural or man-made disasters or other circumstances beyond our control, including fire, earthquake, power loss, communications failure, war or terrorism, or another catastrophic event, such as a pandemic or similar outbreak or public health crisis, which may render it difficult or impossible for us to support our customers and develop updates, upgrades and other improvements to our CODEX and Phenoptics platforms, and workflow software for some period of time. The inability to address system issues or manufacture our products could develop if our facilities, or those of our third party manufacturers, are inoperable or suffer a loss of utilization for even a short period of time, may result in the loss of customers or harm to our reputation, and we may be unable to regain

those customers or repair our reputation in the future. Furthermore, our facilities and the equipment we use to perform our research and development work could be unavailable or costly and time-consuming to repair or replace. It would be difficult, time-consuming and expensive to rebuild either of our facilities, to locate and qualify a new facility or license or transfer our proprietary technology to a third party. Even in the event we are able to find a third party to assist in research and development efforts, we may be unable to negotiate commercially reasonable terms to engage with the third party.

We carry insurance for damage to our property and the disruption of our business, but this insurance may not cover all of the risks associated with damage or disruption to our business, may not provide coverage in amounts sufficient to cover our potential losses and may not continue to be available to us on acceptable terms, if at all.

Our insurance policies are expensive and protect us only from some business risks, which leaves us exposed to significant uninsured liabilities.

We do not carry insurance for all categories of risk that our business may encounter and our policies have limits and significant deductibles.

Some of the policies we currently maintain include general liability, property, umbrella and directors' and officers' insurance.

Any additional product liability insurance coverage we acquire in the future, may not be sufficient to reimburse us for any expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive and in the future we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses. A successful product liability claim or series of claims in which judgments exceed our insurance coverage could adversely affect our business, financial condition, results of operations and prospects, including preventing or limiting the commercialization of any products we develop.

We also expect that operating as a public company will make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, it may be more difficult for us to attract and retain qualified people to serve on our board of directors, our board committees or as executive officers. We do not know, however, if we will be able to maintain existing insurance with adequate levels of coverage. Any significant uninsured liability may require us to pay substantial amounts, which would adversely affect our business, financial condition, results of operations and prospects.

Public health crises such as COVID-19 and similar pandemics or outbreaks have caused and could cause disruptions of the development of our platform technologies and products, and adversely impact our business, financial condition and results of operations.

In March 2020, the World Health Organization declared the novel coronavirus disease, or COVID-19, a global pandemic. The COVID-19 pandemic continues to evolve, and to date has led to the implementation of various responses, including government imposed shelter-in-place orders, quarantines, travel restrictions and other public health safety measures, as well as reported adverse impacts on healthcare resources, facilities and providers across the United States and in other countries, all of which may become additionally heightened concerns upon a subsequent waves of infection. In response to the spread of COVID-19, and in accordance with direction from state and local government authorities, we have restricted access to our facilities mostly to personnel and third parties who must perform critical activities that must be completed on-site, limited the number of such personnel that can be present at our facilities at any one time, and requested that most of our personnel work remotely. In the event that government authorities were to further modify current restrictions, our employees conducting research and development or manufacturing activities may not be able to access our laboratory or manufacturing space, and our core activities may be significantly limited or curtailed, possibly for an extended period of time.

The COVID-19 pandemic has also created many negative headwinds that present risks to our business and results of operations. For example, it has generally disrupted the operations of our customers and prospective customers, and may continue to disrupt their operations, including as a result of laboratory closures, travel restrictions and/or business shutdowns, uncertainty in the financial markets or other harm to

their business and financial results. These disruptions have caused reduced capital spend by our existing customers and potential new customers, which has have negatively impacted our instrument and consumables sales. These disruptions could result in further reductions to capital expenditure budgets, delayed purchasing decisions, longer sales cycles, extended payment terms or missed payments, and postponed or canceled projects, any of which would negatively impact our business and operating results, including sales and cash flows. We do not yet know the net impact that the COVID-19 pandemic may have on our business and cannot guarantee that it will not be materially negative. Although we continue to monitor the situation and may adjust our current policies as more information and public health guidance become available, the ongoing effects of the COVID-19 pandemic and/or the precautionary measures that we have adopted may create operational and other challenges, any of which could harm our business and results of operations. The uncertain development of the COVID-19 pandemic may also exacerbate the severity of the other risks disclosed herein.

Security incidents, loss of data or modification of information, and other disruptions could compromise information related to our business or prevent us from accessing critical information, result in a significant disruption of our activities and expose us to liability, which could adversely affect our business and our reputation.

In the ordinary course of our business, we collect and store information, including personal information, intellectual property and proprietary business information that we own or control or have an obligation to protect. For example, we collect and store research and development information, employee data, commercial information, customer information, business and financial information, and payment card data. We and our service providers, including security and infrastructure vendors, manage and maintain our applications and data using a combination of on-site systems and cloud-based data centers. We face a number of risks related to protecting critical information and our applications, including inappropriate use or disclosure, unauthorized access or acquisition, or inappropriate modification of, critical information. We also face the risk of being unable to access our critical information, applications, or systems due to actual or threats of ransomware, unauthorized encryption, or other malicious activity. We face the risk of our being unable to adequately monitor and audit and modify our controls over our critical information and applications. These risks extend to third-party service providers and subcontractors we use to assist us in managing our information or otherwise process it on our behalf. The secure processing, storage, maintenance and transmission of our critical information are vital to our operations and business strategy, and we devote significant resources to protecting such information.

Although we take reasonable measures to protect critical information and other data from unauthorized access, acquisition, use or disclosure, our information technology and infrastructure and that of our service providers handling and storing information on our behalf may be vulnerable to a variety of disruptions, including data breaches, attacks by hackers and other malicious third parties (including the deployment of computer viruses, malware, ransomware, denial-of-service attacks, social engineering, and other events that affect service reliability and threaten the confidentiality, integrity, and availability of information), unauthorized access, natural disasters, fires, terrorism, war, telecommunications or electrical interruptions or failures, employee error or malfeasance or other malicious or inadvertent disruptions. In particular, the risk of a security breach or disruption, particularly through cyber-attacks or cyber intrusion, has generally increased as the number, intensity, and sophistication of attempted attacks and intrusions from around the world have increased. We may not be able to anticipate all types of security threats, and we may not be able to implement preventive measures effective against all such security threats. Because the techniques used by cyber criminals change frequently, may not be recognized until launched, and can originate from a wide variety of sources, including outside groups such as external service providers, organized crime affiliates or terrorist organizations, we and our services providers and other partners may be unable to anticipate these techniques or implement adequate preventative measures. Further, we do not have any control over the operations of the facilities or technology of third parties that collect, process and store sensitive information on our behalf. Any unauthorized access or acquisition, breach, or other loss, of information could result in legal claims or proceedings, and liability under U.S. federal or state, or non-U.S., laws regarding the privacy and protection of information, including personal information, and could disrupt our operations and harm our reputation. In addition, notice of breaches may be required to affected individuals, regulators, credit reporting agencies or the media. Any such publication or notice could harm our reputation and our ability to compete. The financial exposure from the events referenced above could either not be insured against or not be fully covered through any insurance that we may maintain, and there can be no assurance that

the limitations of liability in any of our contracts would be enforceable or adequate or would otherwise protect us from liabilities or damages as a result of the events referenced above.

In December 2019, we experienced a ransomware incident, which resulted in the encryption of certain Company files. We did not experience a loss of information, and determined that we were not required to notify any person of such incident. The breach was caused by a consultant's support access application becoming compromised which allowed for the installation of malware that encrypted large datasets within our internal network. Upon discovery of the malware, we immediately terminated the consultant's access, files were restored to their original state prior to the encryption, the access application and malware were removed and all users were required to update their passwords. After investigation, we determined that no personal information was accessed or lost. In order to protect against similar occurrences, we took a series of remedial measures, including limiting remote access to our network by third parties, implementing a robust intrusion detection system to protect the network, installing multiple scanning applications on all systems, and implementing a required cybersecurity awareness training program to ensure end users can identify potentially harmful emails and files. However, despite these remedial measures, there can be no assurance that we will be able to protect against similar incidents in the future. Though we determined the ransomware incident had no material impact on our business, including no access to or loss of personal information, this event or similar events in the future may subject us to unfavorable publicity, claims by one or more state attorneys general, or other regulators, any of which could expose us to a disruption or challenges relating to our daily operations, as well as to litigation, disputes, regulatory investigations, orders, damages, fines, indemnity obligations, damages for contract breach, penalties for violation of applicable laws and regulations, and significant increases in compliance costs, and could inhibit sales. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

Seasonality may cause fluctuations in our revenue and results of operations.

We operate on a December 31st year end and believe that there are seasonal factors which may cause sales of our products to vary on a quarterly or yearly basis and increase the magnitude of quarterly or annual fluctuations in our operating results. We believe that this seasonality results from a number of factors, including the procurement and budgeting cycles of many of our customers, especially government- or grant-funded customers, whose cycles often coincide with government fiscal year ends. For example, the United States government's fiscal year end occurs in our third quarter and may result in increased sales of our products during this quarter if government-funded customers have unused funds that may be forfeited, or future budgets that may be reduced, if such funds remain unspent at such fiscal year end. Furthermore, the academic budgetary cycle similarly requires grantees to 'use or lose' their grant funding, which seems to be tied disproportionately to the end of the calendar year, driving sales higher during the fourth quarter. Similarly, our biopharmaceutical customers typically have calendar year fiscal years which also result in a disproportionate amount of their purchasing activity occurring during our fourth quarter. These factors have contributed, and may contribute in the future, to fluctuations in our quarterly operating results. Because of these fluctuations, it is possible that in some quarters our operating results will fall below the expectations of securities analysts or investors. If that happens, the market price of our common stock would likely decrease. These fluctuations, among other factors, also mean that our operating results in any particular period may not be relied upon as an indication of future performance. Seasonal or cyclical variations in our sales have in the past, and may in the future, become more or less pronounced over time, and have in the past materially affected, and may in the future materially affect, our business, financial condition, results of operations and prospects.

Risks Related to Manufacturing and Supply

We outsource the manufacturing of our instruments and reagents to third party manufacturers. The failure of these manufacturers to manufacture finished goods on a timely basis could adversely affect our business.

We have engaged with three different third parties to manufacture our instruments and reagents. One such third party manufacturer manufactures Codex instruments, a second manufactures Phenoptics instruments, and the other third party manufactures our reagent kits. In addition, the third parties we rely on source certain key parts of our instruments from other various parties. We do not have any control over the process or timing of the acquisition or manufacture of materials by our third party manufacturers, and

cannot ensure that they will deliver to us the finished goods we order on time, or at all. If the operations of our third party manufacturers are interrupted, cease, or if they are unable to meet our delivery requirements due to capacity limitations or other constraints, we may be limited in our ability to fulfill new customer orders or to service or repair instruments at current customer sites. Any change to another contract manufacturer, even if ultimately consummated, would likely entail significant delay, require us to devote substantial time and resources, result in additional costs, and could involve a period in which our systems could not be produced in a timely or consistently high-quality manner, any of which could harm our reputation and business, and frustrate our customers and cause them to turn to our competitors. Additionally, we may be unable to enter into agreements with another contract manufacturer on commercially reasonable terms or at all, which could have a material adverse impact on our business.

Our third party manufacturers are dependent upon third party suppliers, including single source suppliers, making us vulnerable to supply shortages and price fluctuations, which could harm our business.

Our instruments and reagents contain components that are currently manufactured by a single supplier or a limited number of suppliers. In many of these cases, we and our third party manufacturers have not yet engaged alternate suppliers and rely upon purchase orders, rather than long-term supply agreements. A supply interruption or an increase in demand beyond our current suppliers' capabilities could harm our ability to manufacture our systems unless and until new sources of supply are identified and qualified. Our reliance on these suppliers subjects us to a number of risks that could harm our business, including:

- interruption of supply resulting from modifications to or discontinuation of a supplier's operations;
- delays in product shipments resulting from uncorrected defects, reliability issues, or a supplier's variation in a component;
- a lack of long-term supply arrangements for key components with our suppliers;
- inability to obtain adequate supply in a timely manner, or to obtain adequate supply on commercially reasonable terms;
- difficulty and cost associated with locating and qualifying alternative suppliers for our components in a timely manner;
- a modification or change in a manufacturing process or part that unknowingly or unintentionally negatively impacts the operation of our systems;
- production delays related to the evaluation and testing of products from alternative suppliers, and corresponding regulatory qualifications;
- delay in delivery due to our suppliers prioritizing other customer orders over ours;
- damage to our brand reputation caused by defective components produced by our suppliers;
- increased cost of our warranty program due to product repair or replacement based upon defects in components produced by our suppliers; and
- fluctuation in delivery by our suppliers due to changes in demand from us or their other customers.

Any interruption in the supply of components or materials, or our inability to obtain substitute components or materials from alternate sources at acceptable prices in a timely manner, could impair our ability to meet the demand of our customers, which would have an adverse effect on our business.

We forecast sales to determine requirements for components and materials used in our systems, and if our forecasts are incorrect, we may experience delays in shipments or increased inventory costs.

We and our third party manufacturers keep limited materials, components and finished products on hand. To manage our operations with our third party manufacturers and suppliers, we forecast anticipated product orders and material requirements to predict our inventory needs and enter into purchase orders on the basis of these requirements. Several components of our instruments and reagent kits have long lead times. Our limited historical commercial experience and rapid growth may not provide us with enough data to consistently and accurately predict future demand. If our business expands and our demand for

components and materials increase beyond our estimates, our manufacturers and suppliers may be unable to meet our demand. In addition, if we or our third party manufacturers underestimate our component and material requirements, we may have inadequate inventory, which could interrupt, delay, or prevent delivery of our systems to our customers. By contrast, if we overestimate our component and material requirements, we may have excess inventory, which would increase our working capital and decrease our cash. Any of these occurrences would negatively affect our financial performance and business results.

Risks Related to Government Regulation

We market certain of our products as Research Use Only, or RUO, in the United States. Our RUO products support the research and development conducted at institutions and biopharmaceutical companies of potential diagnostic and therapeutic products and services for which they may later pursue investigation and clearance, authorization or approval from regulatory authorities, such as the FDA.

RUO products belong to a separate regulatory classification under a long-standing FDA regulation. From an FDA perspective, products that are intended for research use only and are labeled as RUO are not regulated by the FDA as in vitro diagnostic devices for clinical use, and are therefore not subject to those specific regulatory requirements. RUO products may be used or distributed for research use without first obtaining FDA clearance, authorization or approval. The products must bear the statement: "For Research Use Only. Not for Use in Diagnostic Procedures." RUO products cannot make any claims related to safety, effectiveness or diagnostic utility, and they cannot be intended for human clinical diagnostic use. Accordingly, a product labeled RUO but intended or promoted for clinical diagnostic use may be viewed by the FDA as adulterated and misbranded under the FDCA and subject to FDA enforcement action. The FDA will consider the totality of the circumstances surrounding distribution and use of an RUO product, including how the product is marketed and to whom, when determining its intended use. If the FDA disagrees with our RUO status for our product, we may be subject to FDA enforcement activities, including, without limitation, requiring us to seek clearance, authorization or approval for our products.

We are currently subject to, and may in the future become subject to additional, U.S. state and federal, and non-U.S. laws and regulations, industry guidelines, and contracts, imposing obligations on how we collect, store, use and process personal information. Our actual or perceived failure to comply with such obligations could harm our business. Ensuring compliance with such laws could also impair our efforts to maintain and expand our customer base, and thereby decrease our revenue.

We are, and may increasingly become, subject to various laws and regulations, as well as contractual obligations and mandatory industry standards relating to data privacy and security in the jurisdictions in which we operate. The regulatory environment related to data privacy and security is increasingly rigorous, with new and constantly changing requirements applicable to our business, and enforcement practices are likely to remain uncertain for the foreseeable future. These laws and regulations may be interpreted and applied differently over time and from jurisdiction to jurisdiction, and it is possible that they will be interpreted and applied in ways that may have a material adverse effect on our business, financial condition, results of operations and prospects.

We are not a business associate under the Health Insurance Portability and Accountability Act of 1996, or HIPAA, and do not receive, access, store, or transmit any individually identifiable health information of any patient; however, we are a covered entity under HIPAA as an employer that sponsors a group health plan for its employees. Therefore, the HIPAA Privacy, Security and Breach Notification Rules apply to our group health plan. We have appointed a HIPAA Privacy Officer and HIPAA Security Officer, train our group health plan employees on HIPAA compliance and ensure that individuals outside of the group health plan functions do not have access to protected health information of our employees. We have also entered into a business associate agreement with our third party administrator to handle medical claims for our group health plan. The HIPAA privacy regulations govern the use and disclosure of protected health information by covered healthcare providers, as well as health insurance plans. They also set forth certain rights that an individual has with respect to his or her protected health information maintained by a covered plan, including the right to access or amend certain records containing protected health information or to request restrictions on the use or disclosure of protected health information. The HIPAA security regulations establish requirements for safeguarding the confidentiality, integrity and availability of protected health

information that is electronically transmitted or electronically stored. A covered entity must also notify HHS and each affected individual of a breach of unsecured protected health information as well as the media if the breach involves more than 500 individuals in a particular jurisdiction. HIPAA violations are subject to civil and criminal penalties.

Despite the fact that we do not currently access, store, receive or transmit any protected health information on behalf of a covered entity which could qualify us as a business associate under HIPAA, from time to time we are asked by a customer to enter into a business associate agreement. To date, we have not entered into any business associate agreements and do not intend to do so as a standard practice. We are in the process of undergoing HITRUST certification and revising our policies and procedures to establish compliance with the HIPAA Security Rule for our commercial business, in the event that we have access to protected health information in the future or if a customer insists that we execute a business associate agreement. We expect that we will complete the necessary reviews and implement the procedures and policies required to fully comply with the elements of HIPAA applicable to a business associate by the end of Q3 of this year. The HIPAA Security Rule regulations establish requirements for safeguarding the confidentiality, integrity and availability of protected health information that is electronically transmitted or electronically stored or electronically stored by a business associate. Under the HIPAA Breach Notification Rule, a business associate must notify a covered entity, within certain required timeframes, of any breach of the security of an individual's protected health information by the business associate or any subcontractor of the business associate.

In the United States, in addition to HIPAA, various federal and state regulators, including governmental agencies like the Federal Trade Commission, or the FTC, have adopted, or are considering adopting, laws and regulations concerning personal information and data security. According to the FTC, failing to take appropriate steps to keep consumers' personal information secure or using or disclosing personal information in violation of a company's privacy notice may constitute unfair or deceptive acts or practices in or affecting commerce in violation of the Federal Trade Commission Act (FTCA.) The FTC expects a company's data security measures to be reasonable and appropriate in light of the sensitivity and volume of consumer information it holds, the size and complexity of its business and the cost of available tools to improve security and reduce vulnerabilities. We may also become subject to additional data privacy and security laws and regulations in the future, and we anticipate that states and potentially, the federal government, may propose or enact legislation to strengthen data privacy and security standards, which may cause us to incur additional costs and expenses to maintain compliance and could subject us to fines, penalties and negative publicity in the event of a breach or violation under any such law or regulation. Certain state laws may be more stringent or broader in scope, or offer greater individual rights, with respect to personal information than federal, international or other state laws, and such laws may differ from each other, all of which may complicate compliance efforts. For example, the California Consumer Privacy Act of 2018, or CCPA, which increases privacy rights for California residents and imposes obligations on companies that process their personal information and meet certain revenue or volume processing thresholds, came into effect on January 1, 2020, and was further amended by the California Privacy Rights Act, or CPRA, on November 3, 2020. Among other things, the CCPA requires covered companies to provide new disclosures to California residents and provide such residents new data protection and privacy rights, including the ability to opt-out of certain sales of personal information. The CCPA provides for civil penalties for violations, as well as a private right of action for certain data breaches. The CPRA significantly modifies the CCPA by expanding residents' rights with respect to certain personal information and creates a new state agency to oversee implementation and enforcement efforts. Many of the CPRA's provisions will become effective on January 1, 2023. This private right of action may increase the likelihood of, and risks associated with, data breach litigation, including class-action litigation. In addition, laws in all 50 U.S. states require businesses to provide notice to individuals if certain of their personal information has been disclosed as a result of a qualifying data breach. State laws are changing rapidly and there is discussion in the U.S. Congress of a new comprehensive federal data privacy law to which we may likely become subject, if enacted.

Internationally, laws, regulations and standards in many jurisdictions apply broadly to the collection, use, retention, security, disclosure, transfer, marketing and other processing of personal information. For example, the EU General Data Protection Regulation, or GDPR, which became effective in May 2018, greatly increased the European Commission's jurisdictional reach of its data privacy and security laws and introduced a broad array of requirements for handling personal data. EU member states are tasked under

the GDPR to enact, and have enacted, certain implementing legislation that adds to and/or further interprets the GDPR requirements and potentially extends our obligations and potential liability for failing to meet such obligations. The GDPR, together with national legislation, regulations and guidelines of the EU member states governing the processing of personal data, impose strict obligations and restrictions on the ability to collect, use, retain, protect, disclose, transfer and otherwise process personal data. In particular, the GDPR includes requirements to establish a legal basis for processing, higher standards for obtaining consent from individuals to process their personal data, more robust disclosures to individuals, a strengthened individual data rights regime, requirements to implement safeguards to protect the security and confidentiality of personal data, data breach notification obligations to appropriate data protection authorities or individuals, limitations on retention and secondary use of information, increased requirements pertaining to health data and additional obligations when entities contract with third-party processors to process personal data. The GDPR allows for fines for certain violations of up to 4% of global annual revenue or €20 million, whichever is greater, and other administrative penalties. Following the withdrawal of the United Kingdom from the European Union, data privacy and security laws that are substantially similar to the GDPR are in effect in the United Kingdom, which carry similar risks and authorize similar fines for certain violations.

Certain legal regimes outside of the United States, including in the United Kingdom and under the GDPR, prohibit the transfer of personal data to the United States unless certain measures are in place, including, for example, executing Standard Contractual Clauses, or historically, relying on the receiving entity's certification under the EU-US and/or Swiss-US Privacy Shield Frameworks, or the Privacy Shield Frameworks. The Privacy Shield Frameworks were invalidated, and the adequacy of Standard Contractual Clauses is now in question, following the Court of Justice of the European Union's July 2020 decision in the so-called Schrems II case (Data Protection Commissioner v. Facebook Ireland Limited, Maximillian Schrems (Case C-311/18)). Due to this evolving regulatory guidance, we are continuing to evaluate the validity of the data transfer mechanisms upon which we rely and we may need to invest in additional technical, legal and organizational safeguards in the future to avoid disruptions to data flows within our business and to and from our customers and service providers. There is no guarantee that any transfer mechanism upon which we rely will be deemed to be valid by the relevant legal authorities, or that mechanisms that are currently deemed to be valid will remain valid in the future. This uncertainty, and its eventual resolution, may increase our costs of compliance, impede our ability to transfer data and conduct our business and harm our business or results of operations.

We use third-party credit card processors to process payments from our customers. Through our agreements with our third-party credit card processors, we are subject to payment card association operating rules, including the Payment Card Industry Data Security Standard, or PCI-DSS, which governs a variety of areas, including how consumers and customers may use their cards, the security features of cards, security standards for processing, data security and allocation of liability for certain acts or omissions, including liability in the event of a data breach. Any change in these rules or standards and related requirements could make it difficult or impossible for us to comply. Additionally, any data breach or failure to hold certain information in accordance with PCI-DSS may have an adverse effect on our business and results of operations.

All of these evolving compliance and operational requirements impose significant costs, such as costs related to organizational changes, implementing additional protection technologies, training employees and engaging consultants and legal advisors, which are likely to increase over time. In addition, such requirements may require us to modify our data processing practices and policies, utilize management's time or divert resources from other initiatives and projects, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects. Any failure or perceived failure by us to comply with any applicable federal, state or similar non-U.S. laws and regulations relating to data privacy and security could result in damage to our reputation, as well as proceedings or litigation by governmental agencies or other third parties, including class action privacy litigation in certain jurisdictions, which would subject us to significant fines, sanctions, awards, injunctions, penalties or judgments. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

As we continue to expand our product and technology offerings and the applications and uses of our products into new fields, we may become subject to government regulation, and the regulatory approval and maintenance process for such products may be expensive, time-consuming and uncertain both in timing and in outcome.

As we continue to expand our product and technology offerings and the applications and uses of our existing products into new fields, certain of our current or future products could become subject to regulation by the FDA, or comparable regulatory authorities, including requirements for regulatory clearance or approval of such products before they can be marketed. Such regulatory approval processes or clearances may be expensive, time-consuming and uncertain, and our failure to obtain or comply with such approvals and clearances could have an adverse effect on our business, financial condition and operating results. The laws, regulations and policies governing the marketing of our products or future products, for example, RUO products, companion diagnostics, or other products and services are extremely complex and in many instances there may be no significant regulatory or judicial interpretations of these laws and regulations. These laws and regulations are subject to interpretation by the relevant regulatory and enforcement officials, and they may interpret them differently than we do. Furthermore, changes to the current regulatory framework, including the imposition of additional or new regulations, including regulation of our products, could arise at any time during the development or marketing of our products, which may negatively affect our ability to obtain or maintain FDA or comparable regulatory approval of our products, if required. Further, if we sell devices for diagnostic purposes, we may in turn be subject to additional healthcare regulation and enforcement by the applicable government agencies. Such laws and regulations include, without limitation, state and federal anti-kickback, fraud and abuse, false claims, data privacy and security and transparency and reporting requirements for payments and transfers of value to physicians and certain other healthcare professionals.

Diagnostic products are regulated as medical devices by the FDA and comparable international agencies and may require either clearance from the FDA following the 510(k) pre-market notification process or pre-market approval from the FDA, in each case prior to marketing. Obtaining the requisite regulatory clearances or approvals can be expensive and may involve considerable delay in our ability to commercialize our products. For example, we may in the future assist in the development of, or perform clinical testing relative to, companion diagnostics which would subject us to much more extensive regulation under FDA law, CMS/CLIA regulations and state laboratory requirements. None of our products are currently offered to customers as medical devices, however, if our products labeled as RUO are used, or could be used, for the diagnosis of disease, the regulatory requirements related to marketing, selling and supporting such products could change or be uncertain, even if such use by our customers is without our consent.

If the FDA or other regulatory authorities assert that any of our products are subject to regulatory clearance or approval, our business, financial condition or results of operations could be adversely affected.

International expansion of our business exposes us to business, regulatory, political, operational, financial and economic risks associated with doing business outside of the United States.

We currently have limited international operations, and our business strategy incorporates potentially significant international expansion. We currently maintain relationships with distributors outside of the United States, and may in the future enter into new distributor relationships. We may also extend laboratory capabilities outside of the United States, both directly and possibly indirectly. Doing business internationally involves a number of risks, including:

- multiple, conflicting and changing laws and regulations such as data privacy and security regulations, tax laws, export and import restrictions, tariffs, economic sanctions and embargoes, employment laws, regulatory requirements and other governmental approvals, permits and licenses;
- failure by us or our distributors to obtain approvals to conduct our business in various countries;
- differing respect, and protection for, intellectual property rights in other jurisdictions;
- complexities and difficulties in obtaining intellectual property protection, maintaining, enforcing and defending our intellectual property and proprietary rights and defending against third-party intellectual property claims;

- difficulties in staffing and managing foreign operations;
- logistics and regulations associated with shipping systems and parts and components for systems, consumables and reagent kits, as well as transportation delays;
- travel restrictions that limit the ability of marketing, presales, sales, services and support teams to service customers;
- financial risks, such as longer payment cycles, difficulty collecting accounts receivable, the impact of local and regional financial crises on demand and payment for our products and exposure to foreign currency exchange rate fluctuations;
- international trade disputes that could result in tariffs and other protective measures;
- natural disasters, political and economic instability, including wars, terrorism and political unrest, outbreak of disease, boycotts, curtailment of trade and other business restrictions; and
- regulatory and compliance risks that relate to maintaining accurate information and control over sales and distributors' activities that may fall within the purview of the U.S. Foreign Corrupt Practices Act, or FCPA, its books and records provisions, or its anti-bribery provisions.

Any of these factors could significantly harm our future international expansion and operations and, consequently, our business, financial condition, results of operations and prospects. In addition, certain international markets are subject to significant political and economic uncertainty, including for example the effect of the withdrawal of the United Kingdom from the European Union. Significant political and economic developments in international markets for which we intend to operate, or the perception that any of them could occur, creates further challenges for operating in these markets in addition to creating instability in global economic conditions.

We could be adversely affected by violations of the FCPA and the anti-bribery and anti-corruption laws of the United States or other countries.

We are subject to the FCPA, which among other things prohibits companies and their intermediaries from making payments in violation of law to non-U.S. government officials for the purpose of obtaining or retaining business or securing any other improper advantage. We have engaged independent distributors in the past and currently use independent distributors to sell our platforms and instruments outside of the United States. Our reliance on independent distributors to sell the CODEX and Phenoptics platforms internationally demands a high degree of vigilance in maintaining our policy against participation in corrupt activity, because these distributors could be deemed to be our agents and we could be held responsible for their actions. Other U.S. companies in the biotechnology and biopharmaceutical field have faced criminal penalties under the FCPA for allowing their agents to deviate from appropriate practices in doing business with these individuals. We are also subject to similar anti-bribery laws in the jurisdictions in which we operate, including the United Kingdom's Bribery Act of 2010, which also prohibits commercial bribery and makes it a crime for companies to fail to prevent bribery, and the People's Republic of China anti-bribery laws, including the PRC Anti-Unfair Competition Law amended in 2017, the PRC Criminal Law amended in 2017. These laws are complex and far-reaching in nature, and, as a result, we cannot assure you that we would not be required in the future to alter one or more of our practices to be in compliance with these laws or any changes in these laws or the interpretation thereof. Any violations of these laws, or allegations of such violations, could disrupt our operations, involve significant management distraction, involve significant costs and expenses, including legal fees and could result in a material adverse effect on our business, financial condition, results of operations and prospects. We could also suffer severe penalties, including criminal and civil penalties, disgorgement and other remedial measures.

Our employees, consultants, distributors and commercial partners may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements, and insider trading.

We are exposed to the risk of fraud or other misconduct by our employees, consultants, distributors and commercial partners. Misconduct by these parties could include intentional failures to comply with the applicable laws and regulations in the United States and abroad, report financial information or data accurately or disclose unauthorized activities to us. These laws and regulations may restrict or prohibit a

wide range of pricing, discounting and other business arrangements. Such misconduct could result in legal or regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter employee misconduct, and any other precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses, or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could result in the imposition of significant civil, criminal and administrative penalties, which could have a significant impact on our business. Whether or not we are successful in defending against such actions or investigations, we could incur substantial costs, including legal fees and divert the attention of management in defending ourselves against any of these claims or investigations.

We use biological and hazardous materials that require considerable expertise and expense for handling, storage and disposal and may result in claims against us.

We work with materials, including chemicals, biological agents and compounds that could be hazardous to human health and safety or the environment. Our operations also produce hazardous and biological waste products. Federal, state and local laws and regulations govern the use, generation, manufacture, storage, handling and disposal of these materials and wastes. We are subject to periodic inspections by federal, state and local authorities to ensure compliance with applicable laws. Compliance with applicable environmental laws and regulations is expensive, and current or future environmental laws and regulations may restrict our operations. If we do not comply with applicable regulations, we may be subject to fines and penalties.

In addition, we cannot eliminate the risk of accidental injury or contamination from these materials or wastes, which could cause an interruption of our commercialization efforts, research and development programs and business operations, as well as environmental damage resulting in costly clean-up and liabilities under applicable laws and regulations. In the event of contamination or injury, we could be liable for damages or penalized with fines in an amount exceeding our resources and our operations could be suspended or otherwise adversely affected. Furthermore, environmental laws and regulations are complex, change frequently and have tended to become more stringent. We cannot predict the impact of such changes and cannot be certain of our future compliance.

Risks Related to Intellectual Property

If we are unable to obtain and maintain sufficient patent or other intellectual property protection for our technology, including the CODEX and Phenoptics platforms, or if the scope of the intellectual property protection obtained is not sufficiently broad, our competitors could develop and commercialize products and technology similar or identical to ours, and our ability to successfully commercialize our products and our technology may be impaired.

We rely on patent protection as well as trademark, copyright, trade secret and other intellectual property rights protection and contractual restrictions to protect our proprietary technologies, all of which provide limited protection and may not adequately protect our rights or permit us to gain or keep any competitive advantage. If we fail to obtain or to protect our intellectual and proprietary property, third parties may be able to compete more effectively against us. In addition, we may incur substantial litigation costs in our attempts to recover or restrict use of our intellectual property.

To the extent our intellectual property offers inadequate protection, is found to be invalid or unenforceable, or laws affecting the scope of intellectual property protection and remedial actions change, we would be exposed to a greater risk of direct competition. If our intellectual property does not provide adequate coverage of our own or our competitors' products, our competitive position could be adversely affected, as could our business. Both the patent application process and the process of managing patent disputes can be time-consuming and expensive.

As is the case with other life sciences and biotechnology companies, our success depends in large part on our ability to obtain and maintain protection of the intellectual property we may own solely and jointly with others, particularly patents, in the United States and other countries with respect to our products and technologies. We apply for patents covering our products and technologies and uses thereof, as we deem appropriate. However, obtaining and enforcing patents in our industry is costly, time-consuming and complex,

and we may fail to apply for patents on important products, services and technologies in a timely fashion or at all, or we may fail to apply for patents in potentially relevant jurisdictions. We may not be able to file and prosecute all necessary or desirable patent applications, or maintain, enforce and license any patents that may issue from such patent applications, at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. We may not have the right to control the preparation, filing and prosecution of patent applications, to maintain the rights to patents licensed to or from third parties, or to control enforcement of licensed patent rights. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. We may not be able to control the extent of auxiliary rights licensed to other parties by entities from whom we license patent rights, which may affect our ability to exclude other parties from markets and jurisdictions based on those licensed patent rights.

It is possible that none of our pending patent applications will result in issued patents in a timely fashion or at all, and even if patents are granted, they may not provide a basis for intellectual property protection of commercially viable products or services, may not provide us with any competitive advantages, or may be challenged and invalidated by third parties. It is possible that others will design around our current or future patented technologies or that our patents and patent applications may be challenged at the United States Patent and Trademark Office, or USPTO, or in proceedings before the patent offices of other jurisdictions. We may not be successful in defending any such challenges made against our patents or patent applications. We may not be able to intervene or participate in any challenge to patent rights that are licensed by us from another party. Any successful third-party challenge to our patents could result in the unenforceability or invalidity of such patents, in whole or in part, and increased competition to our business. We may have to challenge the patents or patent applications of third parties. The outcome of patent litigation or other proceedings can be uncertain, and any attempt by us to enforce our patent rights against others or to challenge the patent rights of others may not be successful, or, if successful, may take substantial time and result in substantial cost, and may divert our efforts and attention from other aspects of our business.

Furthermore, our patents may be subject to a reservation of rights by one or more third parties. For example, the research resulting in certain of our in-licensed patent rights and technology was funded in part by the U.S. government. As a result, the government may have certain rights, or march-in rights, to such patent rights and technology. When new technologies are developed with government funding, the government generally obtains certain rights in any resulting patents, including a non-exclusive license authorizing the government to use the invention for non-commercial purposes. These rights may permit the government to disclose our confidential information to third parties and to exercise march-in rights to use or allow third parties to use our licensed technology. The government can exercise its march-in rights if it determines that action is necessary because we fail to achieve practical application of the government-funded technology, because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations, or to give preference to U.S. industry. In addition, our rights in such inventions may be subject to certain requirements to manufacture products embodying such inventions in the United States.

The patent positions of life sciences companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in such companies' patents has emerged to date in the United States or elsewhere. Courts frequently render opinions in the biotechnology field that may affect the patentability of certain inventions or discoveries. Further, codified patent laws, legal principles, the scope of damages, and remedies for patent infringement can vary widely among jurisdictions, and our business may be affected differentially among those jurisdictions by any verdict, judgment, administrative proceeding, or other decision relating to enforcement of patent rights.

Moreover, the coverage claimed in a patent application can be significantly reduced before the patent is issued, and its scope can be reinterpreted after issuance. Even if patent applications we license or own, currently or in the future, issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors or other third parties from competing with us, or otherwise provide us with any competitive advantage. Any patents that we own may be challenged, narrowed, circumvented or invalidated by third parties. Consequently, we do not know whether our products or other

technologies will be protectable or remain protected by valid and enforceable patents. Our competitors or other third parties may be able to circumvent our patents by developing similar or alternative technologies or products in a non-infringing manner which could harm our business, financial condition and results of operations.

Some of our patents and patent applications may in the future be co-owned with third parties. If we are unable to obtain an exclusive license to any such third-party co-owners' interest in such patents or patent applications, such co-owners may be able to license their rights to other third parties, including our competitors, and our competitors could market competing products and technology. In addition, we may need the cooperation of any such co-owners of our patents in order to enforce such patents against third parties, and such cooperation may not be provided to us. Any of the foregoing could harm our business, financial condition and results of operations.

Additionally, we may find it necessary or prudent to acquire or obtain licenses from third-party intellectual property holders. However, we may be unable to acquire or secure such licenses to any intellectual property rights from third parties that we identify as necessary for our products or any future products we may develop. The acquisition or licensing of third-party intellectual property rights is a competitive area, and our competitors may pursue strategies to acquire or license third-party intellectual property rights that we may consider attractive or necessary. Our competitors may have a competitive advantage over us due to their size, capital resources and greater development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to acquire or license third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment or at all. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

We heavily depend on intellectual property licensed from third parties, including our license agreements with Stanford for our CODEX product, PKI, Cambridge Research and VisEn Medical Inc. for our Phenoptics product, and our licensors may not always act in our best interest. If such owners do not properly or successfully obtain, maintain or enforce the patents underlying such licenses, or if they retain or license to others any competing rights, our competitive position and business prospects may be adversely affected.

We are dependent on patents, know-how and proprietary technology licensed from others. As a result, any termination of these licenses could result in the loss of significant rights and could harm our ability to commercialize our product candidates. For example, we are a party to an agreement with Stanford pursuant to which we in-license key patents and patent applications for our proprietary CODEX product, as well as possible future product candidates and other technology used in our CODEX product. We are also a party to license agreements with the University of Washington; Caliper Life Sciences, Inc.; and PKI, Cambridge Research, and VisEn Medical Inc., pursuant to in which we have in-licensed important patents that protect key aspects of our current and future technologies.

Our current license agreements impose, and future agreements may impose, various diligence, commercialization, milestone payment, royalty, insurance and other obligations on us and require us to meet development timelines, or to exercise commercially reasonable efforts to develop and commercialize licensed products, in order to maintain the licenses. If we fail to comply with these obligations, our licensors may have the right to terminate our license, in which event we would not be able to further develop or market our CODEX product. For example, our license agreement with Stanford imposes various due diligence, development and commercialization obligations, milestone payments, royalties and other obligations on us.

Certain of our licenses, including certain licenses with Stanford may not provide us with exclusive rights to use the licensed intellectual property and technology, or may not provide us with exclusive rights to use such intellectual property and technology in all relevant fields of use and in all territories in which we may wish to develop or commercialize our technology and product candidates in the future. In addition, the intellectual property portfolio licensed to us by our licensors, including certain intellectual property licensed by Stanford, at least in some respects, may be used by such licensors or licensed to third parties, and such third parties may have certain enforcement rights with respect to such intellectual property. Thus, patents licensed to us could be put at risk of being invalidated or interpreted narrowly in litigation filed by or against our licensors or another licensee or in administrative proceedings brought by or against our

licensors or another licensee in response to such litigation or for other reasons. As a result, we may not be able to prevent competitors or other third parties from developing and commercializing competitive products, including in territories covered by our licenses.

In addition, we may need or desire to obtain additional licenses from our existing licensors and others to advance our research or allow commercialization of product candidates we may develop. In addition, third parties may allege that we require a license to their intellectual property rights to use our software and technology in connection with the exploitation of our products. It is possible that we may be unable to obtain needed or desired additional licenses at a reasonable cost or on reasonable terms, if at all. In such an event, we may be required to expend significant time and resources to redesign our technology, product candidates, or the methods for manufacturing them or to develop or license replacement technology, all of which may not be feasible on a technical or commercial basis. If we are unable to do so, we may be liable for damages, which may be significant, and we may be unable to develop or commercialize the affected technology or product candidates, or face greater risk in the development or commercialization of such technologies and product candidates, which would significantly harm our business, financial condition, results of operations and prospects significantly. We cannot provide any assurances that third-party patents and other intellectual property rights do not exist which might be enforced against our current technology, manufacturing methods, product candidates, or future methods or products resulting in either an injunction prohibiting our manufacture or future sales, or, with respect to our future sales, an obligation on our part to pay royalties and/or other forms of compensation to third parties, which could be significant. Even if we are able to obtain such additional licenses, they may be non-exclusive thereby giving our competitors and other third parties access to the same technology licensed to us.

In addition, we may seek to obtain additional licenses from our licensors and, in connection with obtaining such licenses, we may agree to amend our existing licenses in a manner that may be more favorable to the licensors, including by agreeing to terms that could enable third parties, including our competitors, to receive licenses to a portion of the intellectual property that is subject to our existing licenses and to compete with our product candidates.

For example, some of our future agreements with certain of our third-party research partners may provide that improvements developed in the course of our relationship may be owned solely by either us or our third-party research partner. If we determine that rights to such improvements owned solely by a third-party research partner or other third party with whom we collaborate are necessary to commercialize our products or maintain our competitive advantage, we may need to obtain a license from such third party in order to use the improvements and continue developing, manufacturing or marketing our products. We may not be able to obtain such a license on an exclusive basis, on commercially reasonable terms, or at all, which could prevent us from commercializing our product candidates or allow our competitors or others the chance to access technology that is important to our business.

Our success will depend in part on the ability of our licensors to obtain, maintain, protect and enforce patent protection for our licensed intellectual property, in particular, those patents to which we have secured exclusive rights. Our licensors may not successfully prosecute the patent applications licensed to us. If we or our licensors fail to adequately protect our licensed intellectual property, our ability to commercialize our product candidates and technology could suffer. In addition, we may not have the right to control the maintenance, prosecution, preparation, filing, enforcement, defense and litigation of patents and patent applications that we license from other third parties. For example, in each of our agreements with Stanford; the University of Washington; and PKI, Cambridge Research and VisEn Medical Inc., we do not maintain control over the prosecution and maintenance of the licensed patents. We thus cannot be certain that activities such as the maintenance and prosecution by our licensors have been or will be conducted consistent with our best interests or in compliance with applicable laws and regulations, or will result in valid and enforceable patents and other intellectual property rights. It is possible that our licensors' infringement proceedings or defense activities may be less vigorous than had we conducted them ourselves or may not be conducted in accordance with our best interests. If our licensors fail to maintain such patents or patent applications, determine not to pursue litigation against other companies that are infringing these patents, pursue litigation less aggressively than we would, or lose rights to those patents or patent applications, the rights we have licensed may be reduced or eliminated, and our right to develop and commercialize any of our product candidates that are the subject of such licensed rights and our right to exclude third parties from

commercializing competing products could be adversely affected. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

We are generally also subject to all of the same risks with respect to protection of intellectual property that we license as we are for intellectual property that we own, which are described herein. If we or our licensors fail to adequately protect this intellectual property, our ability to commercialize products could suffer, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Our products are dependent on intellectual property we license from third parties. If we fail to comply with our obligations under our intellectual property licenses, if the licenses are terminated, or if disputes regarding these licenses arise, we could lose significant rights that are important to our business and could interfere with our ability to operate our business.

Our instruments incorporate intellectual property we license from Stanford, with respect to CODEX, and PKI, Cambridge Research and VisEn Medical Inc., with respect to Phenoptics. Disputes may arise regarding intellectual property subject to a license agreement, including those relating to:

- the scope of rights, if any, granted under the license agreement and other interpretation-related issues;
- our financial and other obligations under the license agreement;
- whether and the extent to which our technology and processes infringe, misappropriate or otherwise violate intellectual property of the licensor that is not subject to the licensing agreement;
- our right to sublicense patent and other rights to third parties under collaborative development relationships;
- our diligence obligations with respect to the use of the licensed technology in relation to our development and commercialization of our product candidates and what activities satisfy those diligence obligations;
- the inventorship or ownership of inventions and know-how resulting from the creation or use of intellectual property by our licensors and us and our partners; and
- the priority of invention of patented technology.

If disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected technology or product candidates.

Our license agreements are, and future license agreements are likely to be, complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

In spite of our efforts, our current and future licensors might conclude that we have materially breached our obligations under our license agreements and might therefore terminate such license agreements, thereby removing or limiting our ability to develop and commercialize products and technology covered by these license agreements. If these in-licenses are terminated, or if the underlying patents fail to provide the intended exclusivity, competitors would have the freedom to seek regulatory approval of, and to market, products identical or competitive to ours and we may be required to cease our development and commercialization of certain of our product candidates. Moreover, if disputes over intellectual property that we license prevent or impair our ability to maintain other licensing arrangements on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected technology or product candidates. In addition, certain of these license agreements may not be assignable by us without the consent of the respective licensor, which may have an adverse effect on our ability to engage in certain transactions. As a result, any termination of or disputes over our intellectual property licenses could result

in the loss of our ability to develop and commercialize our product candidates, or we could lose other significant rights, experience significant delays in the development and commercialization of our product candidates, or incur liability for damages, any of which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

In addition, a third party may in the future bring claims that our performance under our license agreements, including our sponsoring of clinical trials, interferes with such third party's rights under its agreement with one of our licensors. If any such claim were successful, it may adversely affect our rights and ability to advance our product candidates as clinical candidates or subject us to liability for monetary damages, any of which would have an adverse effect on our business, financial condition, results of operations and prospects.

Changes in patent law and its interpretation in the United States and other jurisdictions could diminish the value of patents in general, thereby impairing our ability to protect our products and technologies.

Changes in either the patent laws or in interpretations of patent laws in the United States or other countries or regions may diminish the value of our intellectual property. We cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents. We may not develop additional proprietary products, methods and technologies that are patentable.

Assuming that other requirements for patentability are met, prior to March 16, 2013, in the United States, the first to invent the claimed invention was entitled to the patent, while outside the United States, the first to file a patent application was entitled to the patent. On or after March 16, 2013, under the Leahy-Smith America Invents Act, or the America Invents Act, enacted in September 2011, the United States transitioned to a first-inventor-to-file system in which, assuming that other requirements for patentability are met, the first inventor to file a patent application will be entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. A third party that files a patent application in the USPTO on or after March 16, 2013, but before us could therefore be awarded a patent covering an invention of ours even if we had made the invention before it was made by such third party. This will require us to be cognizant of the time from invention to filing of a patent application. Since patent applications in the United States and most other countries are confidential for a period of time after filing or until issuance, we cannot be certain that we or our licensors were the first to either file any patent application related to our products or technologies or invent any of the inventions claimed in our or our licensors' patents or patent applications.

The America Invents Act also included a number of significant changes that affect the way patent applications are prosecuted and also may affect patent litigation. These include allowing third-party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by USPTO-administered post-grant proceedings, including post-grant review, *inter partes* review and derivation proceedings. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in United States federal courts necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. Accordingly, a third party may attempt to use the USPTO procedures to invalidate our patent claims that would not have been invalidated if first challenged by the third party as a defendant in a district court action. Therefore, the America Invents Act and its implementation have increased the uncertainties and costs surrounding the prosecution of our owned or in-licensed patent applications and the enforcement or defense of our owned or in-licensed issued patents.

In addition, the patent position of companies in the biotechnology field is particularly uncertain. Various courts, including the United States Supreme Court, have rendered decisions that affect the scope of patentability of certain inventions or discoveries relating to biotechnology. These decisions state, among other things, that a patent claim that recites an abstract idea, natural phenomenon or law of nature (for example, the relationship between particular genetic variants and cancer) are not themselves patentable. Precisely what constitutes a law of nature or abstract idea is uncertain and continues to evolve in the courts, and it is possible that certain aspects of our technology could be considered natural laws. Accordingly, the evolving statutory and case law in the United States may adversely affect our ability to obtain patents and may

facilitate third-party challenges to any owned or licensed patents. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

Issued patents covering our products and technologies could be found invalid or unenforceable if challenged or unenforceable if challenged in court or before administrative bodies in the United States or abroad, which could harm our business, financial condition and results of operations.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability. Our patents or patent applications (including licensed patents) may be challenged at the USPTO or foreign patent offices in opposition, derivation, reexamination, *inter partes* review, post-grant review, interference or other proceedings. Any successful third-party challenge to our patents could result in the unenforceability or invalidity of such patents, in whole or in part, which may lead to increased competition to our business, which could harm our business. In addition, in patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. The outcome following legal assertions of invalidity and unenforceability during patent litigation is unpredictable. If a defendant were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection on certain aspects of our products and platform technologies. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, regardless of the outcome, it could dissuade companies from collaborating with us to license, develop or commercialize current or future products.

We may not be aware of all third-party intellectual property rights potentially relating to our products. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until approximately 18 months after filing or, in some cases, not until such patent applications issue as patents. We might not have been the first to make the inventions covered by each of our pending patent applications and we might not have been the first to file patent applications for these inventions. To determine the priority of these inventions, we may have to participate in interference proceedings, derivation proceedings or other post-grant proceedings declared by the USPTO or foreign patent offices that could result in substantial cost to us. The outcome of such proceedings is uncertain. No assurance can be given that third-party patent applications will not have priority over our patent applications. In addition, changes to the patent laws of the United States allow for various post-grant opposition proceedings that have not been extensively tested, and their outcome is therefore uncertain. Furthermore, if third parties bring these proceedings against our patents, we could experience significant costs and management distraction.

In addition, if we initiate legal proceedings against a third party to enforce a patent covering our products, the defendant could counterclaim that such patent is invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO or made a misleading statement during prosecution. Defenses of these types of claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business. Third parties may also raise claims challenging the validity or enforceability of our patents before administrative bodies in the United States or abroad, even outside the context of litigation, including through re-examination, post-grant review, *inter partes* review, interference proceedings, derivation proceedings and equivalent proceedings in foreign jurisdictions (such as opposition proceedings). Such proceedings could result in the revocation of, cancellation of or amendment to our patents in such a way that they no longer cover our products or technologies. The outcome for any particular patent following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant or other third party were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent

protection on our products and technology. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

Our rights to develop and commercialize our products and technologies are subject, in part, to the terms and conditions of licenses granted to us by others.

We have in-licensed certain intellectual property rights from third parties, including Stanford and the University of Washington, with respect to our CODEX platform, and PKI, Cambridge Research and VisEn Medical Inc. with respect to our Phenoptics platform, and we may license intellectual property rights from others in the future. See "Business — Licenses" for more information regarding such agreements. If, for any reason, our license agreements are terminated or we otherwise lose the rights associated with such licenses, it could adversely affect our business. Our current and any future license agreements may impose various development, commercialization, funding, diligence, sublicensing, insurance, patent prosecution and enforcement or other obligations on us, as well as milestone, royalty, annual maintenance and other payment obligations. If we breach any material obligations, or use the intellectual property licensed to us in an unauthorized manner, or if, in spite of our efforts, a collaborator or licensor concludes that we have materially breached our obligations under such agreement, we may be required to pay damages and the licensor may have the right to terminate the license, which could result in us being unable to develop, manufacture and commercialize products that are covered by the licensed technology or having to negotiate new or reinstated licenses on less favorable terms, or enable a competitor or other third party to gain access to the licensed technology.

Licensing of intellectual property is of high importance to our business and involves complex legal, business and scientific issues. Disputes may arise between us and our licensors regarding intellectual property subject to a license agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- our compliance with reporting and financial obligations under our license agreements;
- whether and the extent to which our products and technologies infringe on, misappropriate or otherwise violate intellectual property of the licensor that is not subject to the license agreement;
- our right to sublicense the applicable intellectual or proprietary rights to third parties;
- our diligence obligations with respect to the use of the licensed technology in relation to our development and commercialization of our products and technologies, and what activities satisfy those diligence obligations;
- our right to transfer or assign the license;
- the inventorship and/or ownership of patents, inventions, know-how and other intellectual property and proprietary rights resulting from activities performed by our licensors, us and our partners; and
- the priority of invention of patented technology.

These agreements may be complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement. Moreover, if disputes over intellectual property that we have licensed prevent or impair our ability to maintain our licensing arrangements on acceptable terms, we may not be able to successfully develop and commercialize the affected product candidates. In addition, certain of our agreements may limit or delay our ability to consummate certain transactions, may impact the value of those transactions, or may limit our ability to pursue certain activities. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

If we cannot acquire or license rights to use technologies on reasonable terms or at all, we may not be able to commercialize our current or any future products or technologies.

In the future, we may identify third-party intellectual property and technology we may need to license in order to engage in our business, including to develop or commercialize new products or technologies, and

the growth of our business may depend in part on our ability to acquire, in-license or use this technology. However, such licenses may not be available to us on acceptable terms or at all. The licensing or acquisition of third-party intellectual property rights is a competitive area, and several more established companies may pursue strategies to license or acquire third-party intellectual property rights that we may consider attractive or necessary. These established companies may have a competitive advantage over us due to their size, capital resources and greater development or commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. Even if such licenses are available, we may be required to pay the licensor in return for the use of such licensor's technology, including lump-sum payments, ongoing maintenance fees, payments based on certain milestones such as development and regulatory events and sales volumes, or royalties based on sales of our platform. In addition, such licenses may be non-exclusive, which could give our competitors and other third parties access to the same intellectual property licensed to us. We may also need to acquire or negotiate licenses to patents or patent applications before or after introducing a commercial product. The acquisition and licensing of third-party patent and other intellectual property and proprietary rights is a competitive area, and other companies may also be pursuing strategies to acquire or license such rights that we may consider attractive. Our business, financial condition, results of operations and prospects could be materially and adversely affected if we are unable to enter into necessary agreements on acceptable terms or at all, if any necessary licenses are subsequently terminated, if the licensors fail to abide by the terms of the licenses or fail to prevent infringement, misappropriation or other violation by third parties, or if the acquired or licensed patents or other rights are found to be invalid or unenforceable. Moreover, we could encounter delays in the introduction of products or services while we attempt to develop alternatives. Defense of any lawsuit or failure to obtain any of these licenses on favorable terms could prevent us from commercializing our current and any future products and technologies. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

We have limited foreign intellectual property rights and we may not be able to protect our intellectual property rights throughout the world, which could harm our business, financial condition and results of operations.

We have limited intellectual property rights outside the United States. Filing, prosecuting and defending patents on our products, technologies, instruments and workflows in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the United States, and we may encounter difficulties in protecting and defending such rights in foreign jurisdictions. Consequently, we may not be able to prevent third parties from practicing our inventions in some or all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Competitors or other third parties may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and may also export infringing products to territories where we have patent protection, but enforcement is not as strong as in the United States. These products may compete with our products. Our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing. In addition, certain countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to other parties. Furthermore, many countries limit the enforceability of patents against other parties, including government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of any patents.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of many other countries do not favor the enforcement of patents and other intellectual property and proprietary protection, particularly those relating to biotechnology, which could make it difficult for us to stop the infringement, misappropriation or other violation of our intellectual property rights including infringement of our patents in such countries. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, or that are initiated against us, and the damages or other remedies awarded, if any, may not be commercially meaningful. In addition, changes in the law and legal decisions by courts in the United States and foreign countries may affect our ability to

obtain adequate protection for our products, services and other technologies and the enforcement of intellectual property. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we are forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired, and our business, financial condition and results of operations may be harmed.

If we are unable to protect the confidentiality of our trade secrets, the value of our technology could be materially adversely affected and our business could be harmed.

We rely on trade secrets and confidentiality agreements to protect our unpatented know-how, technology and other proprietary information, including parts of our technology platforms, and to maintain our competitive position. However, trade secrets and know-how can be difficult to protect. In addition to pursuing patents on our technology, we seek to protect our intellectual property and proprietary technology by entering into agreements, including confidentiality agreements, non-disclosure agreements and intellectual property assignment agreements, with our employees, consultants, academic institutions, corporate partners and, when needed, our advisors. However, we cannot be certain that such agreements have been entered into with all relevant parties. We therefore cannot be certain that our trade secrets and other confidential proprietary information will not be disclosed or that competitors or other third parties will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. For example, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Such agreements may not be enforceable or may not provide meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosure or other breaches of the agreements, and we may not be able to prevent such unauthorized disclosure, which could adversely impact our ability to establish or maintain a competitive advantage in the market. If we are required to assert our rights against such party, it could result in significant cost and distraction. Depending upon the parties involved in such a breach, the available remedies may not provide adequate compensation for the value of any proprietary information disclosed to a third party.

Monitoring unauthorized disclosure is difficult, and we do not know whether the steps we have taken to prevent such disclosure are, or will be, adequate. If we were to attempt to enforce a claim that a third party had illegally obtained and was using our trade secrets, it would be expensive and time-consuming, and the outcome would be unpredictable. In addition, the scope of protection for trade secrets outside the United States varies widely and may be significantly less than in the United States, and damages and other remedies available for improper disclosure of proprietary information can differ substantially from those in the United States, and in some jurisdictions may not be available at all.

We also seek to preserve the integrity and confidentiality of our confidential proprietary information by maintaining physical security of our premises and physical and electronic security of our information technology systems, but it is possible that these security measures could be breached. If any of our confidential proprietary information were to be lawfully obtained or independently developed by a competitor or other third party, absent patent protection, we would have no right to prevent such competitor from using that technology or information to compete with us, which could harm our competitive position. If any of our trade secrets were to be disclosed to or independently discovered by a competitor or other third party, it could harm our business, financial condition, results of operations and prospects.

We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed trade secrets or other confidential information of their former employers or other third parties or claims asserting ownership of what we regard as our own intellectual property.

We have employed and expect to employ individuals who were previously employed at universities or other companies, including our competitors or potential competitors. Although we try to ensure that our

employees, consultants, advisors and independent contractors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that our employees, advisors, consultants or independent contractors have deliberately, inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information of their former employers or other third parties, or to claims that we have improperly used or obtained such trade secrets. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights and face increased competition to our business. A loss of key research personnel work product could hamper or prevent our ability to commercialize potential products, which could harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

In addition, while it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. The assignment of intellectual property rights may not be self-executing, or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. Any of the foregoing could harm our business, financial condition, results of operations and prospects.

We may not be able to protect and enforce our trademarks and trade names, or build name recognition in our markets of interest thereby harming our competitive position.

The registered or unregistered trademarks or trade names that we own may be challenged, infringed, circumvented, declared generic, lapsed or determined to be infringing on or dilutive of other marks. We may not be able to protect our rights in these trademarks and trade names, which we need in order to build name recognition. In addition, third parties have filed, and may in the future file, for registration of trademarks similar or identical to our trademarks, thereby impeding our ability to build brand identity and possibly leading to market confusion. If they succeed in registering or developing common law rights in such trademarks, and if we are not successful in challenging such rights, we may not be able to use these trademarks to develop brand recognition of our technologies, products or services. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of our registered or unregistered trademarks or trade names. Further, we may in the future be required to enter into agreements with owners of such third-party trade names or trademarks to avoid potential trademark litigation which may limit our ability to use our trade names or trademarks in certain fields of business.

We have not yet registered certain of our trademarks in all of our potential markets, although we have registered 10 trademarks in the United States as well as certain of our trademarks outside of the United States. If we apply to register these trademarks in other countries, and/or other trademarks in the United States and other countries, our applications may not be allowed for registration in a timely fashion or at all; and further, our registered trademarks may not be maintained or enforced. In addition, opposition or cancellation proceedings have been, or may in the future be, filed against our trademark applications and registrations, and our trademarks may not survive such proceedings. In addition, third parties may file first for our trademarks in certain countries. If they succeed in registering such trademarks, and if we are not successful in challenging such third-party rights, we may not be able to use these trademarks to market our products and technologies in those countries. If we do not secure registrations for our trademarks, we may encounter more difficulty in enforcing them against third parties than we otherwise would. If we are unable to establish name recognition based on our trademarks and trade names, we may not be able to compete effectively, which could harm our business, financial condition, results of operations and prospects. Over the long-term, if we are unable to establish name recognition based on our trademarks, then our marketing abilities may be materially adversely impacted.

We may be subject to claims challenging the ownership or inventorship of our patents and other intellectual property and, if unsuccessful in any of these proceedings, we may be required to obtain licenses from third parties, which may not be available on commercially reasonable terms, or at all, or to cease the development, manufacture and commercialization of one or more of our products.

We or our licensors may be subject to claims that former employees, collaborators or other third parties have an interest in our owned or in-licensed patents, trade secrets or other intellectual property as an

inventor or co-inventor. For example, we or our licensors may have inventorship disputes arise from conflicting obligations of employees, consultants or others who are involved in developing our products.

Litigation may be necessary to defend against these and other claims challenging inventorship of our or our licensors' owned or in-licensed patents, trade secrets or other intellectual property. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, intellectual property that is important to our systems, including our software, workflows, consumables and reagent kits. If we or our licensors were to lose exclusive ownership of such intellectual property, other owners may be able to license their rights to other third parties, including our competitors. We also may be required to obtain and maintain licenses from third parties, including parties involved in any such disputes. Such licenses may not be available on commercially reasonable terms, or at all, or may be non-exclusive. If we are unable to obtain and maintain such licenses, we may need to cease the development, manufacture and commercialization of one or more of our products. The loss of exclusivity or the narrowing of our patent claims could limit our ability to stop others from using or commercializing similar or identical technology and products. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees. Any of the foregoing could harm our business, financial condition, results of operations and prospects.

We may become involved in litigation related to intellectual property, which could be time-intensive and costly and may adversely affect our business, financial condition, results of operations and prospects, and may require us to pay damages, or prevent us from making our existing or future products.

In recent years, there has been significant litigation in the United States involving intellectual property rights. Our commercial success depends in part upon our ability and that of our contract manufacturers and suppliers to manufacture, market, and sell our products and to use our proprietary technologies without infringing, misappropriating or otherwise violating the proprietary rights or intellectual property of third parties. We may in the future be involved in litigation or actions at the USPTO with various third parties that claim we or our partners or customers using our solutions and services have infringed, misappropriated, misused or otherwise violated other parties' intellectual property rights. We expect that the number of such claims may increase as the number of our products, instruments, workflows, and the level of competition in our industry segments, grow. Any claim of infringement, misappropriation or other violation, regardless of its validity, could harm our business by, among other things, resulting in time-consuming and costly litigation, diverting management's time and attention from the development of the business, requiring the payment of monetary damages (including treble damages and attorneys' fees in circumstances where infringement of patent rights is deemed to be willful) or royalty payments, or result in potential or existing customers delaying purchases of our products or entering into engagements with us pending resolution of the dispute.

As we move into new markets and applications for our platforms, incumbent participants in such markets may assert their patents and other intellectual property and proprietary rights against us as a means of slowing our entry into such markets or as a means to extract substantial license and royalty payments from us. Our competitors and others may now and, in the future, have significantly larger and more mature patent portfolios than we currently have. In addition, future litigation may involve patent holding companies or other adverse patent owners who have no relevant product or service revenue and against whom our own patents may provide little or no deterrence or protection. Therefore, our commercial success may depend in part on our ability to avoid infringing, misappropriating or otherwise violating the patents or other intellectual property and proprietary rights of third parties, or our ability to prove the invalidity or unenforceability of such rights.

Our research, development and commercialization activities may in the future be subject to claims that we infringe, misappropriate or otherwise violate patents or other intellectual property or proprietary rights owned or controlled by third parties. There is a substantial amount of patent challenges and other litigation involving intellectual property and proprietary rights, both within and outside the United States, in the biotechnology industry, including patent infringement lawsuits, interferences, *inter partes* review, *ex parte* review, and post-grant review proceedings before the USPTO and corresponding proceedings (such as oppositions) in foreign patent offices. Numerous U.S. and foreign issued patents and pending patent

applications owned by third parties exist in the fields in which we are developing products. As the biotechnology industry expands and more patents are issued, the risk increases that our products may be subject to claims of infringement of the patent rights of third parties. Numerous significant intellectual property issues have been litigated, are being litigated and will likely continue to be litigated, between existing and new participants in our existing and targeted markets, and one or more third parties may assert that our products or services infringe, misappropriate or otherwise violate their intellectual property or proprietary rights as part of a business strategy to impede our successful entry into or growth in those markets.

Third parties may assert that we are employing their proprietary technology without authorization. In addition, we may in the future receive correspondence from third parties referring to the relevance of such third parties' intellectual property to our technology, our workflows or our advanced automated systems. Because patent applications can take many years to issue, there may be currently pending patent applications which may later result in issued patents that our current or future products and services may be accused of infringing. In addition, we expect our competitors and other third parties may have patents or other intellectual property rights or may in the future obtain patents or other intellectual property rights and allege that making, having made, using, selling, offering to sell or importing our platforms, or the systems, workflows, consumables and reagent kits that comprise our platforms, infringe, misappropriate or otherwise violate these patents and other intellectual property rights. Pending patent applications that may or may not have been published can, subject to certain limitations, be later amended in a manner that may be alleged to cover our platforms, including our products, instruments and workflows. Future patent applications that are related to currently pending patent applications filed by third parties may also be alleged to cover our products, instruments and workflows.

Under the applicable laws of various jurisdictions, the scope of a patent claim is determined by a variety of factors which can include, but are not limited to, an interpretation of statutes, decisions of courts of competent jurisdiction, the written disclosure in a patent, the patent's prosecution history, and an understanding of the scope of knowledge available to a person of ordinary skill in the particular art to which the patent claim pertains at the earliest effective priority date of the patent claim. These various factors can be weighed differently in different jurisdictions, and some may not be taken into account at all. Our interpretation of the meaning or the scope of one or more claims of an issued patent or a pending application may be incorrect, which may negatively impact our ability to market our products. We may incorrectly determine that our products are not covered by third-party patent claims or may incorrectly predict whether a third party's pending application will issue with claims of relevant scope. Our determination of the expiration date of any patent in the United States or abroad that we consider relevant may be incorrect, which may negatively impact our ability to develop and market our products. In order to successfully challenge the validity of a U.S. patent in federal court, we would need to overcome a presumption of validity. As this burden is a high one requiring us to present clear and convincing evidence as to the invalidity of any such U.S. patent claim, there is no assurance that a court of competent jurisdiction would invalidate the claims of any such U.S. patent.

Even if we believe third-party intellectual property claims are without merit, there can be no assurance that we will prevail in any suit initiated against us by third parties, successfully reach a settlement, or otherwise resolve patent or other intellectual property-related claims. Third parties making claims against us may be able to obtain injunctive or other relief, which could block our ability to develop, commercialize and sell products or services, import or export products, components, reagents and other articles, and could result in the award of substantial damages against us, including treble damages and attorney's fees if we are found to have willfully infringed a patent. In the event of a successful claim of infringement, misappropriation or other violation against us, we may be required to pay damages and ongoing royalties, and obtain one or more licenses from third parties, or be prohibited from selling certain products or services. We may not be able to obtain these licenses on acceptable or commercially reasonable terms, if at all, or these licenses may be non-exclusive, which could result in our competitors or other third parties gaining access to the same intellectual property. In addition, we could encounter delays and incur significant costs in product or service introductions while we attempt to develop alternative products or services or redesign our products or services in order to avoid infringing, misappropriating or otherwise violating third-party patents or other intellectual property and proprietary rights. Defense of any lawsuit or failure to obtain any of these licenses or to develop a workaround could prevent us from commercializing our products and technologies, and

the prohibition of sale or the threat of the prohibition of sale of any of our products or technologies could materially affect our business and our ability to gain market acceptance for our products and technologies.

In addition, our agreements with some of our customers, suppliers or other entities with whom we do business require us to defend or indemnify these parties to the extent they become involved in infringement claims, including the types of claims described above. We could also voluntarily agree to defend or indemnify third parties in instances where we are not obligated to do so if we determine it would be important to our business relationships. If we are required or agree to defend or indemnify third parties in connection with any infringement claims, we could incur significant costs and expenses. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

Intellectual property litigation could cause us to spend substantial resources, distract our personnel from their normal responsibilities and result in negative publicity and other harms.

Litigation or other legal proceedings relating to intellectual property claims, even if resolved in our favor, may cause us to incur substantial costs and divert the attention of our management and technical personnel from their normal responsibilities in defending against any of these claims. Parties making claims against us may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. Such litigation or proceedings could substantially increase our operating costs and reduce the resources available for development activities or any future sales, marketing, or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. Uncertainties resulting from the initiation and continuation of intellectual property proceedings could harm our ability to compete in the marketplace. In addition, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. There also could be public announcements of the results of hearings, motions, or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Any of the foregoing could harm our business, financial condition, results of operations and prospects.

We may become involved in lawsuits to protect or enforce our intellectual property, which could be expensive, time-consuming and unsuccessful.

Third parties, including our competitors, could infringe, misappropriate or otherwise violate our intellectual property and proprietary rights. Monitoring unauthorized use of our intellectual property is difficult and costly. From time to time, we seek to analyze our competitors' products and services, and may in the future seek to enforce our rights against potential infringement, misappropriation or violation of our intellectual property. However, the steps we have taken to protect our proprietary rights may not be adequate to enforce our rights as against such infringement, misappropriation or other violation of our intellectual property. We may not be able to detect unauthorized use of, or take appropriate steps to enforce, our intellectual property rights. Any inability to meaningfully enforce our intellectual property rights could harm our ability to compete and reduce demand for our products and services.

Litigation may be necessary for us to enforce our patent and other proprietary rights or to determine the scope, coverage and validity of the proprietary rights of others. We are not currently engaged in any lawsuits based upon allegations of infringement, misappropriation or other violation of intellectual property or proprietary rights. If we become engaged in litigation related to intellectual property rights and we do not prevail in such legal proceedings, we may be required to pay damages and we may lose significant intellectual property protection for our products or services, such that competitors could copy our products or services. Any litigation that may be necessary in the future could result in substantial costs and diversion of resources and could have a material adverse effect on our business, financial condition, results of operations and prospects. In any lawsuit we bring to enforce our intellectual property rights, a court may refuse to the stop the other party from using the technology at issue on grounds that our intellectual property rights do not cover the technology in question. Further, in such proceedings, the defendant could counterclaim that our intellectual property is invalid or unenforceable and the court may agree, in which case we could lose valuable

intellectual property rights. The outcome in any such lawsuits are unpredictable. Even if we do prevail in any future litigation related to intellectual property rights, the cost and time requirements of the litigation could negatively impact our financial results.

Obtaining and maintaining our patent protection depends on compliance with various required procedures, document submissions, fee payments and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications will be due to be paid to the USPTO and various governmental patent agencies outside of the United States at several stages over the lifetime of our patents and/or applications. We have systems in place to remind us to pay these fees, and we engage an outside service and rely on our outside counsel to pay these fees due to non-U.S. patent agencies. The USPTO and various non-U.S. governmental patent agencies also require compliance with a number of procedural, documentary and other similar provisions during the patent application process. We employ reputable law firms and other professionals to help us comply, but we also may be dependent on our licensors to take the necessary action to comply with these requirements with respect to our licensed intellectual property. In many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. However, there are situations in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, our competitors and other third parties may be able to enter the market without infringing our patents, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Patent terms may be inadequate to protect our competitive position on our products for an adequate amount of time.

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest claimed priority date. Modifications to this lifetime may occur, but the life of a patent, and the protection it affords, is limited. Even if patents covering our products are obtained, once the patent term has expired, we may be open to competition from competitive products. If one of our products requires extended development, testing and/or regulatory review, patents protecting such products might expire before or shortly after such products are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours within a commercially meaningful window.

Our use of "open source" software could adversely affect our ability to offer our products and technologies and subject us to possible litigation.

We use open source software in connection with our products and technologies. Companies that incorporate open source software into their technologies have, from time to time, faced claims challenging the use of open source software and/or compliance with open source license terms. As a result, we could be subject to suits by parties claiming ownership of what we believe to be open source software or claiming non-compliance with open source licensing terms. Some open source software licenses require users who distribute software containing open source software to publicly disclose all or part of the source code to such software and/or make available any derivative works of the open source code, which could include valuable proprietary code of the user, on unfavorable terms or at no cost. While we monitor our use of open source software and try to ensure that none is used in a manner that would require us to disclose our internally developed source code or that would otherwise breach the terms of an open source agreement, such use could inadvertently occur, in part because open source license terms are often ambiguous. In addition to risks related to license requirements, use of certain open source software can lead to greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties or controls on the origin of software which, thus, may contain security vulnerabilities or infringing or broken code. Any requirement to publicly disclose our internally developed source code or pay damages for breach of contract could have a material adverse effect on our business, financial condition, results of operations and prospects and could help our competitors develop products and technologies that are similar to or better than ours.

Intellectual property rights do not necessarily address all potential threats.

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations and may not adequately protect our business or permit us to maintain our competitive advantage. For example:

- others may be able to make products and technologies that are similar to any products and technologies we may develop but that are not covered by the claims of the patents that we own or license;
- we, or our current or future license partners or collaborators, might not have been the first to make the inventions covered by our owned or licensed issued patents or pending patent applications;
- we, or our current or future license partners or collaborators, might not have been the first to file patent applications covering certain of our or their inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our owned or licensed intellectual property rights;
- it is possible that our current and future owned or licensed pending patent applications will not lead to issued patents;
- it is possible that there are prior public disclosures that could invalidate our issued patents, or parts of our issued patents;
- it is possible that there are unpublished applications or patent applications maintained in secrecy that may later issue with claims covering our product candidates or technology similar to ours;
- the claims of our patent applications, if and when issued, may not cover our products or technologies;
- the laws of foreign countries may not protect our proprietary rights or the proprietary rights of license partners or current or future collaborators to the same extent as the laws of the United States;
- the inventors of our patent applications may become involved with competitors, develop products or processes that design around our patents, or become hostile to us or the patents or patent applications on which they are named as inventors;
- we engage in scientific collaborations and will continue to do so in the future, and our collaborators may develop adjacent or competing products that are outside the scope of our patents;
- any products or technologies we develop may be covered by third parties' patents or other exclusive rights;
- issued patents that we hold rights to may be held invalid or unenforceable, including as a result of legal challenges by our competitors;
- our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable;
- the patents of others may harm our business; and
- we may choose not to file a patent in order to maintain certain trade secrets or know-how, and a third party may subsequently file a patent covering such intellectual property.

Should any of these events occur, they could have a material adverse effect on our business, financial condition, results of operations and prospects.

Risks Related to Ownership of Our Common Stock and this Offering

There has been no prior public market for our common stock and an active trading market may not develop.

Prior to this offering, there has been no public market for our common stock. An active trading market may not develop following completion of this offering or, if developed, may not be sustained. The

lack of an active trading market may impair the value of your shares and your ability to sell your shares at the time you wish to sell them. An inactive trading market may also impair our ability to raise capital by selling shares of common stock or to acquire other complementary products, technologies or businesses by using our shares of common stock as consideration.

Upon closing of this offering, we expect that our common stock will be listed on Nasdaq. If we fail to satisfy the continued listing standards of Nasdaq, however, we could be de-listed, which would negatively impact the price of our common stock.

We expect that the price of our common stock will fluctuate substantially and you may not be able to sell the shares you purchase in this offering at or above the offering price.

The initial public offering price for the shares of our common stock sold in this offering is determined by negotiation between the representatives of the underwriters and us. This price may not reflect the market price of our common stock following this offering. In addition, the market price of our common stock is likely to be highly volatile and may fluctuate substantially due to many factors, including:

- actual or anticipated fluctuations in our financial condition and operating results, including fluctuations in our quarterly and annual results;
- the introduction of new products or product enhancements by us or others in our industry;
- variances in our product and system reliability;
- overall conditions in our industry and the markets in which we operate;
- disputes or other developments with respect to our or others' intellectual property or proprietary rights;
- actual or anticipated changes in our operating results or growth rate as a result of our competitors' operating results;
- our ability to develop, obtain any required regulatory clearance or approval for, and market new and enhanced products on a timely basis;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- product liability claims or other litigation;
- announcement or expectation of additional financing effort;
- sales of our common stock by us or our stockholders;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- media exposure of our products or of those of others in our industry;
- the COVID-19 pandemic and its impact on our ability to receive products and supplies from third parties and our ability to sell our products;
- changes in applicable governmental regulations or in the status of our regulatory approvals or applications;
- changes in earnings estimates or recommendations by securities analysts; and
- general market conditions and other factors, including factors unrelated to our operating performance or the operating performance of our competitors.

In recent years, the stock markets generally have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of listed companies. Broad market and industry factors may significantly affect the market price of our common stock, regardless of our actual operating performance. These fluctuations may be even more pronounced in the trading market for our common stock shortly following this offering. If the market price of shares of our common stock after this offering does not ever exceed the initial public offering price, you may not realize any return on your investment in us and may lose some or all of your investment.

In addition, in the past, class action litigation has often been instituted against companies whose securities have experienced periods of volatility in market price. Securities litigation brought against us following volatility in our stock price, regardless of the merit or ultimate results of such litigation, could result in substantial costs, which would hurt our financial condition and operating results and divert management's attention and resources from our business.

Future sales of our common stock in the public market could cause our share price to fall.

Sales of a substantial number of shares of our common stock in the public market after this offering, or the perception that these sales might occur in large quantities, could cause the market price of our common stock to decline and could impair our ability to raise capital through the sale of additional equity securities. Upon the closing of this offering, we will have shares of common stock outstanding.

All of the common stock sold in this offering will be freely tradable without restrictions or further registration under the Securities Act except for any shares held by our affiliates as defined in Rule 144 under the Securities Act.

Further, as of December 31, 2020, we had 9,134,929 options outstanding that, if fully exercised, would result in the issuance of 9,134,929 shares of common stock. We intend to file a registration statement on Form S-8 under the Securities Act to register the shares of our common stock subject to outstanding stock options as of the date of this prospectus and shares that will be issuable pursuant to future awards granted under our equity incentive plan. Once we register these shares, they can be freely sold in the public market upon issuance, subject to applicable vesting requirements, compliance by affiliates with Rule 144, and other restrictions provided under the terms of the applicable plan and/or the award agreements entered into with participants.

Sales, short sales, or hedging transactions involving our equity securities, whether before or after this offering and whether or not we believe them to be prohibited, could adversely affect the price of our common stock.

Securities analysts may not publish favorable research or reports about our business or may publish no information at all, which could cause our stock price or trading volume to decline.

If a trading market for our common stock develops, the trading market will be influenced to some extent by the research and reports that industry or financial analysts publish about us and our business. We do not control these analysts. As a newly public company, we may be slow to attract research coverage and the analysts who publish information about our common stock will have had relatively little experience with us or our industry, which could affect their ability to accurately forecast our results and could make it more likely that we fail to meet their estimates. In the event we obtain securities or industry analyst coverage, if any of the analysts who cover us provide inaccurate or unfavorable research or issue an adverse opinion regarding our stock price, our stock price could decline. If one or more of these analysts cease coverage of us or fail to publish reports covering us regularly, we could lose visibility in the market, which in turn could cause our stock price or trading volume to decline.

We are an "emerging growth company" and a "smaller reporting company" and the reduced disclosure requirements applicable to "emerging growth companies" and "smaller reporting companies" may make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act, and we may take advantage of certain exemptions and relief from various reporting requirements that are applicable to other public companies that are not "emerging growth companies." In particular, while we are an "emerging growth company," we will not be required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act; we will be exempt from any rules that could be adopted by the Public Company Accounting Oversight Board requiring mandatory audit firm rotations or a supplement to the auditor's report on financial statements; we will be subject to reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements; and we will not be required to hold nonbinding advisory votes on executive compensation or stockholder approval of any golden parachute payments not previously approved.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to avail ourselves of this extended transition period and, as a result, we will not be required to adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

We may remain an "emerging growth company" until the fiscal year-end following the fifth anniversary of the completion of this initial public offering, though we may cease to be an "emerging growth company" earlier under certain circumstances, including if (i) we have more than $1.07 billion in annual revenue in any fiscal year, (ii) the date on which we are deemed to be a large accelerated filer under the rules of the SEC or (iii) we issue more than $1.0 billion of non-convertible debt over a three-year period.

The exact implications of the JOBS Act are subject to interpretations and guidance by the SEC and other regulatory agencies, and we cannot assure you that we will be able to take advantage of all of the benefits of the JOBS Act. In addition, investors may find our common stock less attractive to the extent we rely on the exemptions and relief granted by the JOBS Act. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may decline or become more volatile.

We are also a "smaller reporting company," meaning that the market value of our stock held by non-affiliates plus the proposed aggregate amount of gross proceeds to us as a result of this offering is less than $700 million and our annual revenue is less than $100 million during the most recently completed fiscal year. We may continue to be a smaller reporting company after this offering if either (i) the market value of our stock held by non-affiliates is less than $250 million or (ii) our annual revenue is less than $100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700 million. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

If our estimates or judgments relating to our critical accounting policies are based on assumptions that change or prove to be incorrect, our operating results could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our common stock.

The preparation of financial statements in conformity with generally accepted accounting principles, or GAAP, requires management to make estimates and assumptions that affect the amounts reported in our consolidated financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenue and expenses that are not readily apparent from other sources. If our assumptions change or if actual circumstances differ from our assumptions, our operating results may be adversely affected and could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our common stock.

If you purchase our common stock in this offering, you will incur immediate and substantial dilution in the book value of your shares.

Investors purchasing common stock in this offering will pay a price per share that substantially exceeds the pro forma as adjusted net tangible book value per share. As a result, investors purchasing common stock in this offering will incur immediate dilution of $ per share, the difference between the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and our pro forma as adjusted net tangible book value per share as of , 2021 after giving effect to this offering. For more information on the dilution you may suffer as a result of investing in this offering, see the section of this prospectus entitled "Dilution." This dilution is due to

the substantially lower price paid by our investors who purchased shares prior to this offering as compared to the price offered to the public in this offering and the exercise prices of stock options granted to our employees and our outstanding warrant. The exercise of any of these options or warrant would result in additional dilution.

Future sales and issuances of our common stock or rights to purchase our common stock, including pursuant to our equity incentive plans, or other equity securities or securities convertible into our common stock, could result in additional dilution of the percentage ownership of our stockholders and could cause the stock price of our common stock to decline.

We may issue additional securities following the closing of this offering. In the future, we may sell common stock, other series of common stock, convertible securities, or other equity securities, including preferred securities, in one or more transactions at prices and in a manner we determine from time to time. We also expect to issue common stock to employees, consultants, and directors pursuant to our equity incentive plans. If we sell common stock, other series of common stock, convertible securities, or other equity securities in subsequent transactions, or common stock is issued pursuant to equity incentive plans, investors may be materially diluted. New investors in subsequent transactions could gain rights, preferences, and privileges senior to those of holders of our common stock.

We do not intend to pay dividends for the foreseeable future. Consequently, any gains from an investment in our common stock will likely depend on whether the price of our common stock increases.

We have not and do not intend to pay any dividends on our common stock in the foreseeable future. We anticipate that we will retain all of our future earnings for use in the operation and growth of our business and for general corporate purposes. Any determination to pay dividends in the future will be at the discretion of our board of directors. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments. Furthermore, our Credit Agreements contain negative covenants that limit our ability to pay dividends. For more information, see the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources.”

A significant portion of our total outstanding shares are restricted from immediate resale but may be sold into the market in the near future. This could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell their shares, could result in a decrease in the market price of our common stock. Immediately after this offering, we will have outstanding shares of common stock based on the number of shares outstanding as of December 31, 2020. This includes the shares that we are selling in this offering, which may be resold in the public market immediately without restriction, unless purchased by our affiliates. Of the remaining shares, shares are currently restricted as a result of securities laws or 180-day lock-up agreements but will be able to be sold after the offering as described in the section of this prospectus entitled “Shares Eligible for Future Sale.” Moreover, after this offering, holders of an aggregate of up to shares of our common stock issuable upon the conversion of the shares of our convertible preferred stock, will have rights, subject to some conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders as described in the section of this prospectus entitled “Description of Capital Stock — Registration Rights.” We also intend to register all shares of common stock that we may issue under our equity compensation plans. Once we register these shares, they can be freely sold in the public market, subject to volume limitations applicable to affiliates and the lock-up agreements described in the section of this prospectus entitled “Underwriting.”

Our directors, officers and principal stockholders have significant voting power and may take actions that may not be in the best interests of our other stockholders.

After this offering, our officers, directors and principal stockholders each holding more than 5% of our common stock will collectively control approximately % of our outstanding common stock. As a result,

these stockholders, if acting together, will continue to have significant influence over the outcome of corporate actions requiring stockholder approval, including the election of directors, amendment of our organizational documents, any merger, consolidation or sale of all or substantially all of our assets and any other significant corporate transaction. The interests of these stockholders may not be the same as or may even conflict with your interests. For example, these stockholders could delay or prevent a change of control of our company, even if such a change of control would benefit our other stockholders, which could deprive our stockholders of an opportunity to receive a premium for their common stock as part of a sale of our company or our assets and might affect the prevailing market price of our common stock. The significant concentration of stock ownership may adversely affect the trading price of our common stock due to investors' perception that conflicts of interest may exist or arise.

We may allocate the net proceeds from this offering in ways that you and other stockholders may not approve.

Our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in the section titled "Use of Proceeds." Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. Our management might not apply our net proceeds in ways that ultimately increase the value of your investment, and the failure by our management to apply these funds effectively could harm our business. Pending their use, we may invest the net proceeds from this offering in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government. These investments may not yield a favorable return to our stockholders. If we do not invest or apply the net proceeds from this offering in ways that enhance stockholder value, we may fail to achieve expected results, which could cause our stock price to decline.

We will incur increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives and corporate governance practices.

As a public company, and particularly after we are no longer an emerging growth company or smaller reporting company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. The Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, Nasdaq listing requirements and other applicable securities rules and regulations impose various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, we expect these rules and regulations to substantially increase our legal and financial compliance costs and to make some activities more time consuming and costly. For example, we expect that these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to incur substantial costs to maintain sufficient coverage. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers. Moreover, these rules and regulations are often subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

If we experience material weaknesses in the future or otherwise fail to implement and maintain an effective system of internal controls in the future, we may not be able to accurately report our financial condition or results of operations which may adversely affect investor confidence in us and, as a result, the value of our common stock.

As a result of becoming a public company, we will be required, under Section 404 of the Sarbanes-Oxley Act, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting beginning with our Annual Report on Form 10-K for the year ended December 31, 2022. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. A material weakness is a deficiency or

combination of deficiencies in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of a company's annual and interim financial statements will not be detected or prevented on a timely basis.

The rules governing the standards that must be met for management to assess our internal control over financial reporting are complex and require significant documentation, testing and possible remediation. To comply with the requirements of being a reporting company under the Exchange Act, including performing the evaluation needed to comply with Section 404, we will need to implement additional financial and management controls, reporting systems and procedures and hire additional accounting and finance staff. We may not be able to complete our evaluation, testing and any required remediation in a timely fashion. During the evaluation and testing process, if we identify one or more material weaknesses in our internal control over financial reporting, we will be unable to assert that our internal controls are effective. The effectiveness of our controls and procedures may be limited by a variety of factors, including:

- faulty human judgment and simple errors, omissions or mistakes;
- fraudulent action of an individual or collusion of two or more people;
- inappropriate management override of procedures; and
- the possibility that any enhancements to controls and procedures may still not be adequate to assure timely and accurate financial control.

We cannot assure you that there will not be material weaknesses in our internal control over financial reporting in the future. Any failure to implement and maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition, results of operations or cash flows. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness in our internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports, the market price of our common stock could decline, and we could be subject to sanctions or investigations by Nasdaq, the SEC or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

When we cease to be an "emerging growth company" under the JOBS Act, our auditors will be required to express an opinion on the effectiveness of our internal controls, unless we are then eligible for any other exemption from such requirement. If we are unable to confirm that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion on the effectiveness of our internal controls, we could lose investor confidence in the accuracy and completeness of our financial reports, which could cause the price of our common stock to decline.

The failure to successfully implement and maintain accounting systems could materially adversely impact our business, results of operations, and financial condition.

If our revenue and other accounting or tax systems do not operate as intended or do not scale with anticipated growth in our business, the effectiveness of our internal control over financial reporting could be adversely affected. Any failure to develop, implement, or maintain effective internal controls related to our revenue and other accounting or tax systems and associated reporting could materially adversely affect our business, results of operations, and financial condition or cause us to fail to meet our reporting obligations. In addition, if we experience interruptions in service or operational difficulties with our revenue and other accounting or tax systems, our business, results of operations, and financial condition could be materially adversely affected.

Our results of operations and financial condition could be materially adversely affected by changes in accounting principles.

The accounting for our business is subject to change based on the evolution of our business model, interpretations of relevant accounting principles, enforcement of existing or new regulations, and changes in policies, rules, regulations, and interpretations, of accounting and financial reporting requirements of the SEC or other regulatory agencies. Adoption of a change in accounting principles or interpretations could

have a significant effect on our reported results of operations and could affect the reporting of transactions completed before the adoption of such change. It is difficult to predict the impact of future changes to accounting principles and accounting policies over financial reporting, any of which could adversely affect our results of operations and financial condition and could require significant investment in systems and personnel.

Provisions in our corporate charter documents and under Delaware law could make an acquisition of us more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our amended and restated certificate of incorporation and our amended and restated bylaws that will become effective upon the closing of this offering may discourage, delay or prevent a merger, acquisition or other change in control of us that stockholders may consider favorable, including transactions in which stockholders might otherwise receive a premium for their shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors. Because our board of directors is responsible for appointing the members of our management team, these provisions could in turn affect any attempt by our stockholders to replace current members of our management team. Among others, these provisions include that:

- our board of directors has the right to expand the size of our board of directors and to elect directors to fill a vacancy created by the expansion of the board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- our board of directors is divided into three classes, Class I, Class II and Class III, with each class serving staggered three-year terms, which may delay the ability of stockholders to change the membership of a majority of our board of directors;
- our stockholders may not act by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- a special meeting of stockholders may be called only by the chair of the board of directors, the chief executive officer, or a majority of the board of directors, which may delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors;
- our amended and restated certificate of incorporation prohibits cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- our board of directors may alter our bylaws without obtaining stockholder approval;
- the required approval of the holders of at least two-thirds of the voting power of all of the then outstanding shares of voting stock to adopt, amend or repeal our bylaws or repeal the provisions of our amended and restated certificate of incorporation regarding the election and removal of directors;
- stockholders must provide advance notice and additional disclosures in order to nominate individuals for election to the board of directors or to propose matters that can be acted upon at a stockholders' meeting, which may discourage or deter a potential acquiror from conducting a solicitation of proxies to elect the acquiror's own slate of directors or otherwise attempting to obtain control of our company; and
- our board of directors is authorized to issue shares of preferred stock and to determine the terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquiror.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

Claims for indemnification by our directors and officers may reduce our available funds to satisfy successful third-party claims against us and may reduce the amount of money available to us.

Our amended and restated certificate of incorporation and amended and restated bylaws, which will become effective immediately prior to the completion of this offering, provide that we will indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law.

In addition, as permitted by Section 145 of the Delaware General Corporation Law, our amended and restated bylaws to be effective immediately prior to the completion of this offering and our indemnification agreements that we have entered or intend to enter into with our directors and officers provide that:

- we will indemnify our directors and officers to the fullest extent permitted by Delaware law. Delaware law provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the registrant and, with respect to any criminal proceeding, had no reasonable cause to believe such person's conduct was unlawful;
- we may, in our discretion, indemnify employees and agents in those circumstances where indemnification is permitted by applicable law;
- we are required to advance expenses, as incurred, to our directors and officers in connection with defending a proceeding, except that such directors or officers will undertake to repay such advances if it is ultimately determined that such person is not entitled to indemnification;
- the rights conferred in our amended and restated bylaws are not exclusive, and we are authorized to enter into indemnification agreements with our directors, officers, employees and agents and to obtain insurance to indemnify such persons; and
- we may not retroactively amend our amended and restated bylaw provisions to reduce our indemnification obligations to directors, officers, employees, and agents.

While we have procured directors' and officers' liability insurance policies, such insurance policies may not be available to us in the future at a reasonable rate, may not cover all potential claims for indemnification, and may not be adequate to indemnify us for all liability that may be imposed.

Our amended and restated certificate of incorporation will provide that the Court of Chancery of the State of Delaware will be the exclusive forum for certain disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated certificate of incorporation that will become effective upon the closing of this offering specifies that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for most legal actions involving actions brought against us by stockholders; provided that, if and only if the Court of Chancery of the State of Delaware dismisses any such action for lack of subject matter jurisdiction, such action may be brought in another state or federal court sitting in the State of Delaware. Our amended and restated certificate of incorporation will also provide that the federal district courts of the United States of America will be the exclusive forum for the resolution of any complaint asserting a cause of action against us or any of our directors, officers, employees or agents and arising under the Securities Act. We believe these provisions may benefit us by providing increased consistency in the application of Delaware law and federal securities laws by chancellors and judges, as applicable, particularly experienced in resolving corporate disputes, efficient administration of cases on a more expedited schedule relative to other forums and protection against the burdens of multi-forum litigation. However, these provisions may have the effect of discouraging lawsuits against our directors and officers. The choice of forum provision requiring that the Court of Chancery of the State of Delaware be the exclusive forum for certain actions would not apply to suits brought to enforce any liability or duty created by the Exchange Act.

There is uncertainty as to whether a court would enforce such provisions, and the enforceability of similar choice of forum provisions in other companies' charter documents has been challenged in legal proceedings. While the Delaware courts have determined that such choice of forum provisions are facially

valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions, and there can be no assurance that such provisions will be enforced by a court in those other jurisdictions. If a court were to find these types of provisions to be inapplicable or unenforceable, and if a court were to find the exclusive forum provision in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving the dispute in other jurisdictions, which could materially adversely affect our business.

Because we do not anticipate paying any cash dividends on our capital stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. Any future determination related to dividend policy will be made at the discretion of our board of directors, subject to applicable laws and the restrictions set forth in any of our contractual agreements, and will depend upon, among other factors, our results of operations, financial condition, contractual restrictions and capital requirements. In addition, any future debt or preferred securities or future debt agreements we may enter may preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

Our ability to use our net operating losses and certain other tax attributes may be limited.

Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, or the Code, if a corporation undergoes an "ownership change," generally defined as a cumulative change of more than 50 percentage points (by value) in its equity ownership by certain stockholders over a three-year period, the corporation's ability to use its pre-change NOL carryforwards and other pre-change tax attributes (such as research tax credits) to offset its post-change income or taxes may be limited. We may have experienced at least one ownership change in the past, and we may experience ownership changes in the future as a result of shifts in our stock ownership (some of which shifts are outside our control), including in connection with this offering. As a result, if we earn net taxable income, our ability to use our pre-change NOL carryforwards to offset such taxable income will be subject to limitations. Similar provisions of state tax law may also apply to limit our use of accumulated state tax attributes. As a result, even if we attain profitability, we may be unable to use a material portion of our NOL carryforwards and other tax attributes, which could adversely affect our future cash flows.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements, which involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this prospectus, including statements regarding our future results of operations or financial condition, business strategy and plans, and objectives of management for future operations are forward-looking statements. In some cases, you can identify forward-looking statements because they contain words such as “may,” “will,” “should,” “expects,” “plans,” “anticipates,” “could,” “intends,” “target,” “projects,” “contemplates,” “believes,” “estimates,” “predicts,” “would,” “potential” or “continue” or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans or intentions. These forward-looking statements include, among others, statements relating to our future financial performance, our business prospects and strategy, our market opportunity and the potential growth of that market, our anticipated financial position, our liquidity and capital needs and other similar matters. These forward-looking statements are based on management’s current expectations and assumptions about future events, which are inherently subject to uncertainties, risks and changes in circumstances that are difficult to predict.

Our actual results may differ materially from those expressed in, or implied by, the forward-looking statements included in this prospectus as a result of various factors, including, among others:

- our company as an early stage company with a history of losses, which expects to incur significant expenses and continuing losses for the foreseeable future;
- our ability to manage and grow our business by expanding our sales to existing customers or introducing our products and technologies to new customers;
- our dependency upon the biopharmaceutical industry’s willingness to adopt our spatial biology platforms;
- the impact of health epidemics, including the COVID-19 pandemic, on our business and the actions we may take in response thereto;
- developments and projections relating to our competitors and industry;
- increases in costs, disruption of supply or shortage of raw materials, which could harm our business;
- our expectations about how market trends will affect our TAM;
- our and our licensors’ ability to obtain, establish, maintain, protect and enforce intellectual property and proprietary protection for our products and technologies and to avoid claims of infringement, misappropriation or other violation of third-party intellectual property and proprietary rights;
- our ability to hire and retain key management, scientific and engineering personnel and to manage our future growth effectively;
- our ability to obtain additional financing in this or future offerings;
- the volatility of the trading price of our common stock;
- evolving regulations and the potential for unfavorable changes to, or failure by us to comply with, regulations, which could substantially harm our business and operating results;
- our expectations regarding the period during which we qualify as an emerging growth company under the JOBS Act; and
- our expectations regarding use of proceeds from this offering.

We have based the forward-looking statements contained in this prospectus primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, results of operations, prospects, business strategy and financial needs. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties, assumptions and other factors described in the section captioned “Risk Factors” and elsewhere in this prospectus. These risks are not exhaustive. Other sections of this prospectus include additional factors that could adversely impact our business and financial performance. Furthermore, new risks and uncertainties emerge from time to time

and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this prospectus. We cannot assure you that the results, events and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events or circumstances could differ materially from those described in the forward-looking statements. You should, however, review the factors and risks and other information we describe in the reports we will file from time to time with the SEC after the date of this prospectus. See “Where You Can Find More Information.”

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement of which this prospectus forms a part with the understanding that our actual future results, levels of activity, performance and achievements may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

The forward-looking statements made in this prospectus relate only to events as of the date on which such statements are made. We undertake no obligation to update any forward-looking statements after the date of this prospectus or to conform such statements to actual results or revised expectations, except as required by law.

USE OF PROCEEDS

We estimate that the net proceeds to us from the sale of shares of our common stock in this offering will be approximately $ million, based upon the assumed initial public offering price of $ per share, which is the midpoint of the estimated offering price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters' option to purchase additional shares is exercised in full, we estimate that the net proceeds to be received by us will be approximately $ million, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share would increase (decrease) the net proceeds that we receive from this offering by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million in the number of shares offered by us would increase (decrease) the net proceeds that we receive from this offering by approximately $ million, assuming that the assumed initial public offering price remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The principal purposes of this offering are to increase our capitalization and financial flexibility, create a public market for our common stock and thereby enable access to the public equity markets for us and our stockholders. We expect to use the net proceeds from this offering for general corporate purposes, which may include, but are not limited to, expanding our commercial operations, funding our research and development efforts to advance our platform of technologies, capital expenditures and funding working capital. We may also use a portion of the net proceeds for acquisitions of, or strategic investments in, complementary businesses, products, services, or technologies. However, we do not have any agreements or commitments to enter into any material acquisitions or investments at this time. Pending the use of the proceeds from this offering as described above, we intend to invest the net proceeds from the offering that are not used as described above in investment-grade, interest-bearing instruments such as money market accounts, certificates of deposit, commercial paper and guaranteed obligations of the U.S. government.

This expected use of net proceeds from this offering represents our intentions based on our current plans and business conditions, which could change in the future as our plans and business conditions evolve. As a result, our management will have broad discretion over the uses of the net proceeds from this offering and investors will be relying on the judgement of our management regarding the application of the net proceeds from this offering.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our common stock, and we do not currently intend to pay any cash dividends on our common stock in the foreseeable future. We currently intend to retain any future earnings for use in the operation and expansion of our business, and we do not plan to declare or pay cash dividends in the foreseeable future. Any further determination to pay dividends on our capital stock will be at the discretion of our board of directors, subject to applicable laws, and will depend on our financial condition, results of operations, capital requirements, general business conditions, and other factors that our board of directors considers relevant. In addition, our ability to pay dividends is currently restricted by the terms of our Term Loan with Midcap Financial Trust. See "*Management's Discussion and Analysis of Financial Condition and Results of Operations — Midcap Financial Trust Loan*" for more information.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and our capitalization as of December 31, 2020:

- on an actual basis;
- on a pro forma basis to reflect (1) the automatic conversion of all outstanding shares of our Class B common stock as of December 31, 2020 into shares of common stock immediately prior to the closing of this offering, (2) the automatic conversion of all outstanding shares of our convertible preferred stock as of December 31, 2020 into shares of common stock immediately prior to the closing of this offering, and (3) the filing of our Certificate of Incorporation immediately prior to the closing of this offering; and
- on a pro forma as adjusted basis to give effect to (1) the pro forma items described immediately above and (2) our issuance and sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma and pro forma as adjusted information below is illustrative only, and our capitalization following the closing of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read this information in conjunction with our consolidated financial statements and the related notes included elsewhere in this prospectus, the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and other financial information contained in this prospectus.

	As of December 31, 2020		
	Actual	Pro Forma	Pro Forma as Adjusted[1]
	(unaudited) (in thousands, except share and per share data)		
Cash and cash equivalents	$17,006	$	$
Current portion of long-term debt	$ 1,032	$	$—
Long-term debt, net of current portion and debt discount	$33,488	$	$—
Redeemable convertible preferred stock,	—	—	
Series B Redeemable Convertible Preferred Stock, $0.00001 par value; 13,715,330 shares authorized, issued and outstanding, actual; no shares authorized, issued and outstanding, pro forma and pro forma as adjusted	11,500		
Series C Redeemable Convertible Preferred Stock, $0.00001 par value; 26,732,361 shares authorized, issued and outstanding, actual; no shares authorized, issued and outstanding, pro forma and pro forma as adjusted	30,107		
Series D Redeemable Convertible Preferred Stock, $0.00001 par value; 16,758,996 shares authorized; 16,390,217 shares issued and outstanding, actual; no shares authorized, issued and outstanding, pro forma and pro forma as adjusted	27,500		

	As of December 31, 2020		
	Actual	Pro Forma	Pro Forma as Adjusted[1]
	(unaudited) (in thousands, except share and per share data)		
Stockholders' (deficit) equity:			
Series A Convertible Preferred Stock, $0.00001 par value; 5,013,333 shares authorized, issued and outstanding, actual; no shares authorized, issued and outstanding, pro forma and pro forma as adjusted	1,253		
Class A Common Stock, $0.00001 par value; 62,220,020 shares authorized; 0 shares issued and outstanding, actual; 500,000,000 shares authorized, shares issued and outstanding, pro forma; shares authorized, shares issued and outstanding, pro forma as adjusted	—		
Class B Common Stock, $0.00001 par value; 16,822,202 shares authorized; 5,973,605 shares issued and outstanding, actual; no shares authorized, issued and outstanding, pro forma and pro forma as adjusted	1		
Preferred Stock, $0.00001 par value; no shares authorized, issued and outstanding, actual; 10,000,000 shares authorized and no shares issued and outstanding, pro forma and pro forma as adjusted	—		
Additional paid-in capital	—		
Accumulated deficit	(52,280)		
Total stockholders' (deficit) equity	(51,026)		
Total capitalization	$ 52,601	$	$

(1) Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share of common stock, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, additional paid-in capital, total stockholders' (deficit) equity and total capitalization by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million shares in the number of shares offered by us at the assumed initial public offering price per share would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, additional paid-in capital, total stockholders' (deficit) equity and total capitalization by approximately $ million, assuming that the assumed initial public offering price remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters' option to purchase additional shares is exercised in full, pro forma as adjusted cash and cash equivalents, additional paid-in capital, total stockholders' (deficit) equity and total capitalization and shares of common stock outstanding would be $ million, $ million, $ million, $ million and shares, respectively.

The outstanding share information in the table above is based on 67,824,846 shares of our common stock outstanding as of December 31, 2020, and excludes:

- 9,134,929 shares of common stock issuable upon the exercise of outstanding stock options, having a weighted average exercise price of $0.22 per share;

- 368,779 shares of our common stock issuable upon the exercise of certain outstanding convertible preferred stock warrants, having an exercise price of $1.53 per share, and are expected remain unexercised after the completion of this offering;
- shares of common stock that will become available for issuance under the 2021 Plan (which number includes shares remaining available for issuance under the 2015 Plan, which will become available for issuance under the 2021 Plan upon its effectiveness); and
- shares of common stock that will become available for issuance under the ESPP, which will become effective in connection with this offering.

Our 2021 Plan and ESPP provide for annual automatic increases in the number of shares reserved thereunder. See the section titled “Executive Compensation — Equity Incentive Plans” for additional information.

DILUTION

If you invest in our common stock in this offering, your interest will be immediately diluted to the extent of the difference between the initial public offering price per share of our common stock in this offering and the pro forma as adjusted net tangible book value (deficit) per share of our common stock after this offering. As of December 31, 2020, we had a pro forma net tangible book value (deficit) of $ million, or $ per share. Pro forma net tangible book value per share represents the amount of our tangible assets less total liabilities, all divided by the number of shares of our common stock outstanding as of December 31, 2020, after giving effect to (1) the automatic conversion of all outstanding shares of our Class B common stock as of December 31, 2020 into shares of common stock immediately prior to the closing of this offering, (2) the automatic conversion of all outstanding shares of our convertible preferred stock as of December 31, 2020 into shares of common stock immediately prior to the closing of this offering and (3) the filing of our Certificate of Incorporation immediately prior to the closing of this offering.

After giving further effect to the sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of December 31, 2020 would have been approximately $ million, or approximately $ per share. This represents an immediate increase in pro forma net tangible book value of $ per share to existing stockholders and an immediate dilution in pro forma net tangible book value of $ per share to new investors purchasing shares of common stock in this offering. Dilution per share to new investors is determined by subtracting pro forma as adjusted net tangible book value per share after this offering from the initial public offering price per share paid by new investors. The following table illustrates this per share dilution:

	Without Over-allotment	With Over-allotment
Assumed initial public offering price per share	$	$
Historical net tangible book value per share as of December 31, 2020	$	$
Pro forma net tangible book value per share as of December 31, 2020	$	$
Increase in pro forma net tangible book value per share attributable to this offering	$	$
Pro forma as adjusted net tangible book value per share after this offering	$	$
Dilution per share to new investors in this offering	$	$

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease), our pro forma as adjusted net tangible book value per share after this offering by $, and would increase (decrease) dilution per share to new investors in this offering by $, in each case assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million shares in the number of shares offered by us would increase (decrease) our pro forma as adjusted net tangible book value per share after this offering by approximately $ per share and decrease (increase) the dilution to new investors by approximately $ per share, in each case assuming that the assumed initial public offering price remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Except as otherwise indicated, the above discussion and table assume no exercise of the underwriters' option to purchase additional shares. If the underwriters' option to purchase additional shares is exercised in full, pro forma as adjusted net tangible book value after this offering would be approximately $ per share, the increase in pro forma net tangible book value per share to existing stockholders would be $ per share and the dilution per share to new investors would be $ per share, in each case

assuming an initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The following table summarizes, on a pro forma as adjusted basis as of December 31, 2020, the differences between the number of shares of common stock purchased from us, the total consideration paid and the average price per share paid by existing stockholders and to be paid by the new investors purchasing shares of common stock in this offering at an assumed initial public offering price of common stock of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, before deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	Shares purchased		Total consideration		Average price per share
	Number	Percent	Amount	Percent	
Existing investors	$	%	$	%	$
New investors in this offering					
Total	$	100%	$	100%	%

The table above assumes no exercise of the underwriters' option to purchase additional shares in this offering. If the underwriters' option to purchase additional shares is exercised in full, the number of shares of our common stock held by existing stockholders would be reduced to % of the total number of shares of our common stock outstanding after this offering, and the number of shares of common stock held by new investors purchasing common stock in this offering would be increased to % of the total number of shares of our common stock outstanding after this offering.

The number of shares of our common stock that will be outstanding after this offering is based on 67,824,846 shares of our common stock (including 61,851,241 shares of preferred stock on an as-converted basis) outstanding as of December 31, 2020, and excludes:

- 9,134,929 shares of common stock issuable upon the exercise of outstanding stock options, having a weighted average exercise price of $0.22 per share;
- 368,779 shares of our common stock issuable upon the exercise of certain outstanding convertible preferred stock warrants, having an exercise price of $1.53 per share, and are expected remain unexercised after the completion of this offering;
- shares of common stock reserved for future issuance under the 2021 Plan (which number includes shares remaining available for issuance under the 2015 Plan, which will become available for issuance under the 2021 Plan upon its effectiveness); and
- shares of common stock reserved for future issuance under the ESPP, which will become effective in connection with this offering.

Our 2021 Plan and ESPP provide for annual automatic increases in the number of shares reserved thereunder. See the section titled "Executive Compensation — Equity Incentive Plans" for additional information.

To the extent any of the outstanding options or warrants are exercised or new options or other securities are issued under our equity incentive plans, you will experience further dilution as a new investor in this offering. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. Furthermore, we may choose to issue common stock as part or all of the consideration in acquisitions as part of our planned growth strategy. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

SELECTED CONSOLIDATED FINANCIAL DATA

The following tables set forth our selected consolidated financial data for the periods and as of the dates indicated. The consolidated financial information as of and for the years ended December 31, 2020 and 2019, are derived from our audited consolidated financial statements and related notes included elsewhere in this prospectus. Our historical results are not necessarily indicative of our future results for any period. You should read this data together with our audited consolidated financial statements and related notes included elsewhere in this prospectus and the information under the caption "Management's discussion and analysis of financial condition and results of operations." The selected consolidated financial data included in this section is not intended to replace the audited consolidated financial statements and related notes included elsewhere in this prospectus.

	Year ended December 31,	
($ in thousands, except share and per share data)	2020	2019
Consolidated statements of operations		
Revenue:		
Product revenue	$ 33,438	$ 36,344
Service and other revenue	9,005	5,892
Total revenue	42,443	42,236
Cost of goods sold:		
Cost of product revenue	12,584	15,447
Cost of service and other revenue	3,951	2,126
Total cost of goods sold	16,535	17,573
Gross profit	25,908	24,663
Operating expenses:		
Selling, general and administrative	23,982	26,351
Research and development	9,603	8,761
Change in fair value of contingent consideration	519	(1,201)
Depreciation and amortization	3,815	3,055
Total operating expenses	37,919	36,966
Loss from operations	(12,011)	(12,303)
Other income (expense):		
Interest expense, net	(2,723)	(1,881)
Change in fair value of warrant liability	(298)	—
Loss on extinguishment of debt	(1,671)	—
Other (expense) income, net	39	(373)
Loss before provision for income taxes	(16,664)	(14,557)
Provision for income taxes	(42)	(194)
Net loss	$ (16,706)	$ (14,751)
Net loss per share attributable to common stockholders, basic and diluted[(1)]	$ (3.94)	$ (3.45)
Weighted-average shares outstanding, basic and diluted[(1)]	5,523,458	5,303,199

(1) See Note 2 and Note 14 to our consolidated financial statements included elsewhere in this prospectus for further details on the calculation of net loss per share attributable to common stockholders, basic and diluted, and the weighted-average shares used to compute net loss per share attributable to common stockholders, basic and diluted.

(in thousands)	December 31, 2020	2019
Consolidated balance sheet data:		
Cash, cash equivalents, certificates of deposit, and restricted cash – long term	$ 17,508	$ 22,160
Working capital[(1)]	11,534	19,719
Total assets	77,660	89,413
Deferred revenue	4,852	5,280
Current portion of long-term debt	1,032	—
Long-term debt, net of current portion and debt discount	33,488	24,466
Total redeemable convertible preferred stock	69,107	64,347
Convertible preferred stock	1,253	1,253
Accumulated deficit	(52,280)	(31,413)
Total stockholders' deficit	(51,026)	(30,159)

(1) Working capital is calculated as current assets less current liabilities. See our consolidated financial statements and related notes included elsewhere in this prospectus for further details regarding our current assets and current liabilities.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of financial condition and results of operations together with the section titled "Selected consolidated financial data" and our consolidated financial statements and related notes included elsewhere in this prospectus. This discussion and other parts of this prospectus contain forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those discussed in or implied by these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the section titled "Risk Factors." Please also see the section titled "Special note regarding forward looking statements."

Overview

We are an innovative life sciences technology company delivering spatial biology solutions focused on transforming discovery and clinical research. Our mission is to deliver a revolutionary new class of spatially derived biomarkers that empower life sciences researchers to better understand disease and clinicians to improve patient outcomes. Spatial biology refers to a rapidly evolving technology that enables academic and biopharma scientists to detect and map the distribution of cell types and biomarkers across whole tissue samples at single cell resolution, enabling advancements in their understanding of disease progression and patient response to therapy. Through our CODEX and Phenoptics platforms, reagents, software and services, we offer end-to-end solutions to perform tissue analysis and spatial phenotyping across the full continuum, from discovery through translational and clinical research.

Our spatial biology solutions measure cells and proteins by providing biomarker data in its spatial context while preserving tissue integrity. Biomarkers are objective measures that capture what is happening in a cell or tissue at a given moment. Current genomic and proteomic methods, such as next-generation sequencing (NGS), single-cell analysis, flow cytometry and mass spectrometry, are providing meaningful data but require the destruction of the tissue sample for analysis. While valuable and broadly adopted, these approaches allow scientists to analyze the biomarkers and cells that comprise the tissue but do not provide the fundamental information about tissue structure, cellular interactions and the localized measurements of key biomarkers. Furthermore, current non-destructive tissue analysis and histological methods provide some limited spatial information, but only measure a minimal number of biomarkers at a time and require expert pathologist interpretation. Our platforms address these limitations by providing end-to-end solutions that enable researchers to quantitatively interrogate a large number of biomarkers and cell types across a tissue section at single cell resolution. The result is a detailed and computable map of the tissue sample that thoroughly captures the underlying tissue dynamics and interactions between key cell types and biomarkers, a process now referred to as spatial phenotyping. We believe that we are the only business with the breadth of platform capabilities that enable researchers to do a deep exploratory and discovery study, and then further advance and scale their study through translational and clinical phases, thereby helping to provide a broad scope of understanding of human biology, disease progression and response to therapy.

We offer two distinct platforms for spatial phenotyping, each designed to serve the unique needs of our customers in the discovery, translational and clinical markets. The first, CODEX, is an ultra-high parameter and cost-effective platform ideally suited for discovery research with the ability to identify more than 40 biomarkers in a tissue sample. The second, Phenoptics, is a high-throughput platform with the automation and robustness needed for translational and clinical applications. Both offer seamless and integrated workflow solutions for our customers, including important benefits such as flexible sample types, automated sample processing, scalability, comprehensive data analysis and software solutions and dedicated field and applications support. With these platforms, our customers are performing spatial phenotyping to further advance their understanding of diseases such as cancer, neurological and autoimmune disorders, and many other therapeutic areas.

For the years ended December 31, 2020 and 2019, revenue from North America accounted for approximately 47% and 53% of our revenue, respectively.

As of December 31, 2020, we employed a commercial team of 67 employees, including many with significant industry and technical experience. We follow a direct sales model in North America and EMEA, while selling through third party distributors and dealers in APAC.

We focus a substantial portion of our resources on research and development, as well as on business development and sales and marketing. Our research and development efforts are geared towards developing new instruments and assay capabilities, as well as new reagent kits, to meet both our customers' needs and to address new markets. We incurred research and development expenses of $9.6 million and $8.8 million for the years ended December 31, 2020 and 2019, respectively. We intend to continue making significant investments in this area for the foreseeable future. We also intend to continue to make investments in building our sales team and marketing our products and services to potential customers. We incurred aggregate general, administrative, and sales and marketing expenses of $24.0 million and $26.4 million for the years ended December 31, 2020 and 2019, respectively.

We generally outsource all of our production manufacturing. Design work, prototyping and pilot manufacturing are performed in-house before outsourcing to third party contract manufacturers. Our outsourced production strategy is intended to drive cost leverage and scale, and avoid the high capital outlays and fixed costs related to constructing and operating a manufacturing facility. The contract manufacturers of our systems and reagent kits are located in the United States and Asia. Certain of our suppliers of components and materials are single source suppliers. We manufacture and assemble certain instrument components in-house.

As of the date of this prospectus, we have financed our operations primarily from the issuance and sale of convertible preferred stock and borrowings under our long-term debt agreement. We have incurred net losses in each year since our inception in 2015. Our net losses were $16.7 million and $14.8 million for the years ended December 31, 2020 and 2019, respectively. We expect to continue to incur significant expenses and operating losses for the foreseeable future. We expect our expenses will increase substantially in connection with our ongoing activities, as we:

- attract, hire and retain qualified personnel, including the expansion of our commercial capabilities and organizations;
- market and sell new and existing solutions and services;
- invest in processes and infrastructure to scale our business;
- support research and development to introduce new solutions;
- expand, protect and defend our intellectual property; and
- acquire complementary businesses or technologies to support the growth of our business.

Key factors affecting our results of operations and future performance

There are a number of factors that have impacted, and we believe will continue to impact, our business, results of operations and growth. Our ability to successfully address these factors is subject to various risks and uncertainties, including those described under the heading "*Risk Factors.*"

Expansion of our installed base

We are focused on increasing sales of our Codex and Phenoptics platforms to new and existing customers. Our financial performance has historically been driven by, and will continue to be impacted by, the volume of instrument sales. Additionally, instrument sales are a leading indicator of future recurring revenue from consumables and services. Our operating results and growth prospects will be dependent in part on our ability to increase our instrument installed base as we further penetrate existing markets and expand into, or offer new features and solutions that appeal to, new markets.

We believe our market is still evolving and relatively underpenetrated. As spatial biology is further validated through rapid acceleration of peer-reviewed publications and growing adoption by the life sciences research market, we believe we have an opportunity to significantly increase our installed base. In order to capitalize on this opportunity to drive adoption of our platforms across the entire market, we intend to expand our global sales and marketing organizations, increase the scale of our outbound marketing activities, invest in commercial channel infrastructure and deliver new, market-leading solutions to our customers. In addition, we regularly solicit feedback from our customers in order to enhance our solutions

and their applications for life sciences research, which we believe will drive increased adoption of our platforms as they better serve our customers' needs.

Drive incremental pull through

We believe that expansion of our installed base to new and existing customers will drive an increase in our recurring reagent and instrument service revenue. In addition, as our research and development team identifies and launches new applications and biomarker targets, we expect to increase incremental pull through on our existing and new instrument installed base. Recurring revenue was 33% and 29% of total revenue for the years ended December 31, 2020 and 2019, respectively. Our recurring revenue as a percentage of total product and service revenue will vary based upon new device placements in the period. As our installed base expands, we expect recurring revenue on an absolute basis to increase and become an increasingly important contributor to our revenue.

Improve revenue mix and gross margin

Our revenue is primarily derived from sales of our platforms, consumables, software, and services. Our revenue mix will fluctuate from period-to-period, particularly revenue generated from instrument sales. As our installed base grows, we expect consumables and instrument service revenue to constitute a larger percentage of total revenue.

Our margins are higher for those instruments and consumables that we sell directly to customers compared to those sold through distributors. While we do not currently intend to terminate our distributor relationships, we plan to increase our direct sales capabilities in certain geographies which we believe will improve our gross margins.

Future instrument and consumable selling prices and gross margins may fluctuate due to a variety of factors, including the introduction by others of competing products and solutions. We aim to mitigate downward pressure on our average selling prices by increasing the value proposition offered by our instruments and consumables, primarily by expanding the applications for our devices and increasing the quantity and quality of data that can be obtained using our consumables.

COVID-19 Impact

In March 2020, COVID-19 was declared a global pandemic by the World Health Organization. In the following weeks, many states and counties across the United States responded by implementing a number of measures designed to prevent its spread, including stay-at-home or shelter-in-place orders, quarantines and closure of all non-essential businesses. The impact of this pandemic has been and will likely continue to be extensive in many aspects of society, which has resulted in and will likely continue to result in significant disruptions to the global economy, as well as businesses and capital markets around the world.

Impacts in 2020 to our business as a result of COVID-19 include disruptions to our manufacturing operations and supply chain caused by facility closures, reductions in operating hours, staggered shifts and other social distancing efforts, decreased productivity and unavailability of materials or components, limitations on our employees' and customers' ability to travel, and delays in product installations, trainings or shipments to and from affected countries and within the United States. In light of the uncertain and rapidly evolving situation relating to the spread of COVID-19, we have taken precautionary measures intended to minimize the risk of the virus to our employees, our customers and the communities in which we operate, including temporarily closing our offices to visitors and limiting the number of employees in our offices to those that are deemed essential for manufacturing and research purposes, as well as virtualizing, postponing or canceling customer, employee and industry events.

Disruptions in our customers' operations have impacted and may continue to impact our business. For example, laboratory shutdowns and reduced capital spend by our customers have negatively impacted our instrument and reagent sales. We are focused on navigating the challenges presented by COVID-19, with a primary focus on preserving our liquidity and managing our cash flows by taking preemptive action to enhance our ability to meet our short-term liquidity needs. To address actual and expected reductions in revenue and cash flows, we reduced our discretionary spending.

We do not yet know the net impact that the COVID-19 pandemic may have on our business and cannot guarantee that it will not be materially negative. Although we continue to monitor the situation and may adjust our current policies as more information and public health guidance become available, the ongoing effects of the COVID-19 pandemic and/or the precautionary measures that we have adopted may create operational and other challenges, any of which could harm our business and results of operations. While we maintain an inventory of finished products and raw materials used in our products, a prolonged pandemic could lead to shortages in the raw materials necessary to manufacture our products. If we experience a prolonged disruption in our manufacturing, supply chains or commercial operations, or if demand for our products is significantly reduced as a result of the COVID-19 pandemic, we would expect to experience a material adverse impact on our business, financial condition, results of operations and prospects.

Historically, a significant portion of our field sales, customer training events and other application services have been conducted in person, and the rollout of our new products has historically been supported by our participation at industry conferences. Currently, as a result of the work and travel restrictions related to the COVID-19 pandemic, and the precautionary measures that we have adopted, substantially all of our field sales and professional services activities are being conducted remotely, which has resulted in a decrease in our travel expenditures. However, we expect our travel expenditures to increase in the future, which could negatively impact our financial condition and results of operations. As of the date of this prospectus, we do not yet know the extent of the negative impact of such restrictions and precautionary measures on our ability to attract new customers or retain and expand our relationships with existing customers over the near and long term. The length of time and full extent to which the COVID-19 pandemic may directly or indirectly impact our business, results of operations and financial condition will depend on future developments that are highly uncertain, subject to change and difficult to predict.

License Agreements

In November 2015, we entered into an exclusive (equity) agreement with Stanford, pursuant to which Stanford granted us an exclusive, worldwide, sublicensable (subject to certain requirements) license under certain patent rights to make, use, import and commercialize products for diagnostic, industrial and research and development purposes. We agreed to pay annual license maintenance fees ranging from $20 thousand to $50 thousand for the royalty-bearing license to certain patents. We also issued a total of 213,333 shares of Class B common stock pursuant to the agreement in 2015, which were recorded at fair value at the date of issuance. We are required to pay royalties on net sales of products that are covered by patent rights under the agreement at a rate of 2.25%, subject to reductions and offsets in certain circumstances, as well as a portion of any of our sublicensing income.

In September 2018, in connection with the acquisition of the Phenoptics technology from PKI, we entered into a license and royalty agreement with PKI, Cambridge Research & Instrumentation, Inc., and VisEn Medical Inc., pursuant to which such parties granted us an exclusive, nontransferable, sublicensable (subject to certain conditions) license under certain patent rights and know-how to make, use, import and commercialize Phenoptics products and services. We are required to pay royalties on net sales of products and services that are covered by patent rights under the agreement at a rate ranging from 1.0% to 7.0%.

Transition Services Agreement

In September 2018, in connection with the acquisition of the Phenoptics technology from PKI, we entered into a Transition Services Agreement under which PKI will continue to provide various services, including manufacturing and distribution, to us relating to the Phenoptics products over a period of one year in exchange for payment. Over the term of the Transition Services Agreement, we provided PKI with instrument demand forecasts for production and purchase orders specifying the quantity of items to be purchased. Upon termination of the Agreement, all raw materials, work in process, replacement parts, supplies, and finished goods in the possession of PKI and not already owned by us were purchased per the associated pricing list in the Transition Services Agreement. The agreement terminated by its terms as of December 31, 2019.

Key Business Metrics

We regularly review the number of instrument placements and cumulative instrument placement as key metrics to evaluate our business, measure our performance, identify trends affecting our business, develop

financial projections, and make strategic decisions. We believe that these metrics are representative of our current business; however, we anticipate these will change or may be substituted for additional or different metrics as our business grows.

During the years ended December 31, 2020 and 2019, our instrument placements were as follows:

	Year Ended December 31,	
	2020	2019
Instrument Placements:	118	146

Our instruments are sold globally to leading biopharma companies and top research institutions and medical centers. Our quarterly instrument placements fluctuate considerably from period-to-period due to the type and size of our customers and their procurement and budgeting cycles. We expect continued fluctuations in our quarterly period-to-period number of instrument placements.

We believe our instrument placements are important metrics to measure our business because together they are driven by our ability to secure new customers and drive adoption of our Codex and Phenoptics platforms and provide insights into anticipated recurring revenue for consumables and instrument services.

Components of results of operations

Revenue

Product Revenue

We generate product revenue from the sale of our instruments, consumables and software products. Instrument sales accounted for 71% and 73% of our product revenue for the years ended December 31, 2020 and 2019, respectively. Consumables revenue accounted for 26% and 22% of our product revenue for the years ended December 31, 2020 and 2019, respectively.

Our current instrument offerings include our Codex platform and our Phenoptics platform. Our sales process with customers is often long and involves multiple levels of approvals. As a result, the revenue for our platforms can vary significantly from period-to-period and has been, and may continue to be, concentrated in a small number of customers in any given period.

We sell our instruments directly to customers and through distributors. Each of our instrument sales drives various streams of recurring revenue comprised of consumable product sales and instrument services.

Service and Other Revenue

We primarily generate service and other revenue from instrument service, which generally consists of sales of extended service contracts, in addition to installation and training, as well as from our laboratory services operation, where we provide sample testing services to customers utilizing our in-house lab operation.

We offer our customers extended warranty and service plans for our platforms. Our extended warranty and service plans are offered for periods beyond the standard one-year warranty that all customers receive. These extended warranty and service plans generally have fixed fees and terms ranging from one to four additional years. We recognize revenue from the sale of extended warranty and service plans over the respective coverage period, which approximates the service effort provided by us.

The Company records shipping and handling billed to customers as service and other revenue and the related costs in cost of service and other revenue in the consolidated statement of operations.

During the years ended December 31, 2019 and December 31, 2020, our revenue was comprised of the following sources:

	Year ended December 31,	
($ in thousands)	2020	2019
Product and service revenue:		
Product revenue	$33,438	$36,344
Service revenue and other	9,005	5,892
Total revenue	$42,443	$42,236

We sell our products globally. We sell directly to end customers in North America and EMEA and we sell through third party distributors and dealers in the APAC region.

Cost of Goods Sold, Gross Profit and Gross Margin

Product cost of revenue primarily consists of costs for finished goods (both instruments and reagents) produced by our contract manufacturers, and associated freight, shipping and handling costs for products shipped to customers, salaries and other personnel costs, and other direct costs related to those sales recognized as product revenue in the period. Cost of goods sold for services and other primarily consists of salaries and other personnel costs, travel related to services provided, costs of servicing equipment at customer sites, and all personnel and related costs for our laboratory services operation.

We expect that our cost of goods sold will increase or decrease to the extent that our revenue increases and decreases and depending on the mix of revenue in any specific period.

Gross profit is calculated as revenue less cost of goods sold. Gross margin is gross profit expressed as a percentage of revenue. Our gross profit in future periods will depend on a variety of factors, including: market conditions that may impact our pricing, sales mix among instruments, sales mix changes among consumables, excess and obsolete inventories, costs we pay our contract manufacturers for their services, our cost structure for lab service operations relative to volume, and product warranty obligations. Our gross profit in future periods will also vary based upon our channel mix and may decrease based upon our distribution channels.

Gross profit was $25.9 million compared to $24.7 million for the years ended December 31, 2020 and 2019, respectively.

Operating expenses

Research and development. Research and development costs primarily consist of salaries, benefits, engineering/design costs, laboratory supplies, and materials expenses for employees and third parties engaged in research and product development. We expense all research and development costs in the period in which they are incurred.

We plan to continue to invest in our research and development efforts, including hiring additional employees, to enhance existing products and develop new products. As a result, we expect that our research and development expenses will continue to increase in absolute dollars in future periods. We expect these expenses to vary from period to period as a percentage of revenue.

Selling, general and administrative. Our selling, general and administrative expenses primarily consist of salaries and benefits for employees in our executive, accounting and finance, legal expenses related to intellectual property, sales and marketing, operations, and human resource functions as well as professional services fees, such as consulting, audit, tax and legal fees, general corporate costs, commercial sales functions, marketing, travel expenses, facilities, IT, and allocated overhead expenses. We expect that our sales, general and administrative expenses will continue to increase in absolute dollars after this offering, primarily due to increased headcount to support anticipated growth in the business and due to incremental costs associated with operating as a public company. Additionally, we expect an increase in absolute dollars as we expand our commercial sales, marketing and business development teams, increase our presence globally and increase marketing activities to drive awareness and adoption of our platform. We expect these expenses to vary from period to period as a percentage of revenue.

Change in fair value of contingent consideration. On September 28, 2018, the Company acquired substantially all the assets of the Quantitative Pathology Solutions (“QPS”) division of PKI. As part of the acquisition, on September 28, 2018, the Company entered into a Transition Services Agreement and a License Agreement (the “Ancillary Agreements”) with PKI. Under the terms of the License Agreement, the Company agreed to pay PKI certain royalties as a percentage of future sales of products from the QPS division, in exchange for a perpetual license of the right to produce and sell QPS products. This contingent consideration is subject to remeasurement.

Depreciation and amortization. Depreciation and amortization expenses primarily consist of depreciation of property and equipment and amortization of acquired intangibles. We expect that depreciation and amortization expenses will decrease as a percentage of revenue.

Other income (expense)

Interest expense. Interest expense consists primarily of interest related to borrowings under our debt obligations.

Change in fair value of warrant liability. In 2019, the Company issued a warrant to purchase 368,779 additional shares of Series D Preferred Stock at a purchase price of $1.53 per share. The Company uses the Black-Scholes option pricing model to value the warrant liability for the Series D Preferred Stock warrant. This liability is subject to remeasurement.

Loss on extinguishment of debt. Loss on extinguishment of debt primarily consists of fees incurred to extinguish debt plus any related unamortized debt issuance costs.

Other income (expense), net. Other income (expense), net consists primarily of franchise tax and foreign currency exchange gains and losses.

Provision for income taxes

Our provision for income taxes consists primarily of foreign taxes and state minimum taxes in the United States. As we expand the scale and scope of our international business activities, any changes in the United States and foreign taxation of such activities may increase our overall provision for income taxes in the future.

Results of operations

The results of operations presented below should be reviewed in conjunction with the consolidated financial statements and notes included elsewhere in the prospectus. The following tables set forth our results of operations for the periods presented:

	Year ended December 31,	
($ in thousands)	**2020**	**2019**
Product revenue	$ 33,438	$ 36,344
Service and other revenue	9,005	5,892
Total revenue	42,443	42,236
Cost of goods sold:		
Cost of product revenue	$ 12,584	$ 15,447
Cost of service and other revenue	3,951	2,126
Total cost of goods sold	16,535	17,573
Gross profit	25,908	24,663
Operating expenses:		
Selling, general and administrative	23,982	26,351
Research and development	9,603	8,761
Change in fair value of contingent consideration	519	(1,201)
Depreciation and amortization	3,815	3,055
Total operating expenses	37,919	36,966
Loss from operations	(12,011)	(12,303)
Other income (expense):		
Interest expense, net	(2,723)	(1,881)
Change in fair value of warrant liability	(298)	—
Loss on extinguishment of debt	(1,671)	—
Other (expense) income, net	39	(373)
Loss before provision for income taxes	(16,664)	(14,557)
Provision for income taxes	(42)	(194)
Net loss	$(16,706)	$(14,751)

Comparison of the years ended December 31, 2020 and 2019

Revenue

	Year ended December 31,		Change	
($ in thousands, except percentages)	**2020**	**2019**	**Amount**	**%**
Product revenue	$33,438	$36,344	(2,906)	(8)%
Service and other revenue	9,005	5,892	3,113	53%
Total revenue	$42,443	$42,236	207	0%

Product revenue decreased by $2.9 million, or 8%, for the year ended December 31, 2020, compared to the year ended December 31, 2019. The decrease was primarily driven by a $2.7 million decrease in instrument revenue resulting from 118 new system placements during the year ended December 31, 2020, compared to 146 new system placements for the year ended December 31, 2019, largely due to a disruption in our customers operations, including laboratory closures. Such decrease is partially offset by a change in mix of instruments sales in 2020 as compared to 2019, in which sales of our Phenoptics instruments, which have a higher

selling price than our CODEX instruments, as compared to total sales was higher in 2020 as compared to 2019. Additionally, there was a $0.6 million decrease in software sales. This was partially offset by an increase of $0.4 million in consumable sales for the year ended December 31, 2020, as compared to the year ended December 31, 2019, resulting from the increase in our installed base. For the year ended December 31, 2020, we maintained an installed base of 550 systems globally, compared to 432 systems for the year ended December 31, 2019.

Service and other revenue increased by $3.1 million, or 53%, for the year ended December 31, 2020, compared to the year ended December 31, 2019. The growth was primarily due to a $1.7 million increase relating to our lab services operations, and a $1.5 million increase from instrument service during the year ended December 31, 2020, primarily driven by the increase in our installed base and customers renewing their service and warranty contracts, partially offset by a $0.1 million decrease in installation, training, and shipping and handling billed to customers.

Costs of Goods Sold, Gross Profit and Gross Margin

	Year ended December 31,		Change	
($ in thousands, except percentages)	**2020**	**2019**	**Amount**	**%**
Cost of product revenue	$12,584	$15,447	$(2,863)	(19)%
Cost of service and other revenue	3,951	2,126	1,825	86%
Total cost of goods sold	$16,535	$17,573	$(1,038)	(6)%
Gross profit	$25,908	$24,663	$ 1,245	5%
Gross margin	61%	58%		

Cost of product revenue decreased by $2.9 million, or 19%, for the year ended December 31, 2020, compared to the year ended December 31, 2019. The decrease in cost of product revenue was primarily driven by a $3.0 million decrease in costs associated with instrument sales and margin efficiencies gained in 2020 through outsourcing manufacturing to new contract manufacturers and partially offset by a $0.1 million increase in consumables driven by the increase in our installed base. Cost of service and other revenue increased by $1.8 million, or 86%, for the year ended December 31, 2020, compared to the year ended December 31, 2019. The increase was primarily due to increases in cost related to: a) increased extended warranty costs as the installed base matured and customers renewed their service contracts; b) more customers purchased extended warranty as the standard warranty expired; c) increases in direct costs services related to the increase in lab services revenue.

Gross profit increased by $1.2 million, or 5%, and gross margin improved by 3% for the year ended December 31, 2020 as compared to the year ended December 31, 2019, primarily due to a higher mix of consumables revenue driven by a higher install base, in addition to lower instrument cost of goods sold due to moving to a new third-party manufacturer and replace the third-party resources noted above.

Operating Expenses

Selling, General and Administrative

	Year ended December 31,		Change	
($ in thousands, except percentages)	**2020**	**2019**	**Amount**	**%**
Selling, general and administrative	$23,982	$26,351	$(2,369)	(9)%

Selling, general and administrative expense decreased by $2.4 million, or 9%, for the year ended December 31, 2020, compared to the year ended December 31, 2019. The decrease was due to a $2.2 million decrease in professional fees and other expenses related to outside legal, accounting, marketing, consulting and IT services as a result of moving from third-party resources to direct hires in 2020, as well as a decrease in travel and entertainment costs of $1.1 million primarily due to travel restrictions from COVID-19. Such decrease is primarily offset by an increase of $0.6 million in personnel-related expenses to support the growth in our overall operations.

Research and development

($ in thousands, except percentages)	Year ended December 31, 2020	2019	Change Amount	%
Research and development	$9,603	$8,761	$842	10%

Research and development expense increased by $0.8 million, or 10%, for the year ended December 31, 2020, compared to the year ended December 31, 2019. The increase was primarily due to a $1.7 million increase in personnel-related expenses, resulting from increased headcount, offset by a decrease of $0.8 million in outside consulting, engineering, and professional services as a result of moving from third party resources to direct hires in 2020.

Change in fair value of contingent consideration

($ in thousands, except percentages)	Year ended December 31, 2020	2019	Change Amount	%
Change in fair value of contingent consideration	$519	$(1,201)	$1,720	(143)%

Change in fair value of contingent consideration increased by $1.7 million, or (143)%, for the year ended December 31, 2020, compared to the year ended December 31, 2019 due to current year remeasurement.

Depreciation and amortization

($ in thousands, except percentages)	Year ended December 31, 2020	2019	Change Amount	%
Depreciation and amortization	$3,815	$3,055	$760	25%

The $0.8 million increase in depreciation and amortization expense was primarily related to an increase in property and equipment in 2020 as compared to 2019.

Interest expense

($ in thousands, except percentages)	Year ended December 31, 2020	2019	Change Amount	%
Interest expense	$2,723	$1,881	$842	45%

Interest expense increased by $0.8 million, or 45%, for the year ended December 31, 2020, compared to the year ended December 31, 2019. The increase was primarily due to increased debt levels in 2020.

Change in fair value of warrant liability

($ in thousands, except percentages)	Year ended December 31, 2020	2019	Change Amount	%
Change in fair value of warrant liability	$298	$—	$298	100%

Change in fair value of warrant liability increased by $0.3 million, or 100%, for the year ended December 31, 2020, compared to the year ended December 31, 2019 due to current year remeasurement.

Loss on extinguishment of debt

($ in thousands, except percentages)	Year ended December 31, 2020	2019	Change Amount	%
Loss on extinguishment of debt	$1,671	$—-	$1,671	100%

Loss on extinguishment of debt increased by $1.7 million, or 100%, for the year ended December 31,2020, compared to the year ended December 31, 2019 due to extinguishment of the Innovatus Term Loan in 2020.

Other income (expense), net

	Year ended December 31,		Change	
($ in thousands, except percentages)	**2020**	**2019**	**Amount**	**%**
Other income (expense), net	$39	$(373)	$412	(110)%

Other expense, net increased by $0.4 million for the year ended December 31, 2020, compared to the year ended December 31, 2019.

Liquidity and Capital Resources

As of December 31, 2020, we had approximately $17.0 million in cash and cash equivalents which were primarily held in U.S. short-term bank deposit accounts.

Since our inception, we have experienced losses and negative cash flows from operations, and as of December 31, 2020, we had a consolidated net loss of $16.7 million and an accumulated deficit of $52.3 million. We have primarily relied on equity and debt financings to fund our operations to date, including most recently raising gross proceeds of $25.0 million through the sale and issuance of Series D convertible preferred stock in 2019.

We expect to incur additional operating losses in the foreseeable future as we continue to invest in the research and development of our product offerings, commercialize and launch platforms, and expand into new markets. Based on our current business plan, we believe the net proceeds from this offering, together with our existing cash and cash equivalents and anticipated cash flows from operations will be sufficient to meet our working capital and capital expenditure needs over at least the next 12 months following the date of this prospectus.

Our future capital requirements will depend on many factors, including, but not limited to our ability to successfully commercialize and launch products, and to achieve a level of sales adequate to support our cost structure. If we are unable to execute on our business plan and adequately fund operations, or if the business plan requires a level of spending in excess of cash resources, we will have to seek additional equity or debt financing. If additional financings are required from outside sources, we may not be able to raise it on terms acceptable to us or at all. If we are unable to raise additional capital when desired, our business, financial condition, results of operations and prospects could be adversely affected.

Sources of Liquidity

Since our inception, we have financed our operations primarily from the issuance and sale of our convertible preferred stock and borrowings under long-term debt agreements.

Convertible preferred stock financings

Through December 31, 2020, we have raised a total of $60.5 million from the issuance and sale of convertible preferred stock, net of costs associated with such financings. Most recently, in 2019 we issued shares of Series D convertible preferred stock for gross proceeds of $25.0 million.

Payroll Protection Program loan

During April 2020, we received a $2.48 million small business loan under the Payroll Protection Program, part of the Coronavirus Aid, Relief and Economic Security Act, the CARES Act.. We expect a portion of the loan to be forgiven under the provisions of the program. See “Risks Related to Our Business and Strategy — We received economic stimulus funding under the CARES Act.’ If such funding is not forgiven and is required to be repaid pursuant to the terms of the CARES Act or related guidance, our business, results of operations, and financial condition may be materially and adversely affected.” The note

bears interest at a rate of 1.00% and payments are scheduled to begin the latter of March 2021, or upon response by the Small Business Administration regarding our forgiveness application.

Midcap Financial Trust Loan

In October 2020, we entered into a new debt financing arrangement with Midcap Financial Trust, or Term Loan, for a $37.5 million credit facility, consisting of a senior, secured term loan to refinance all existing indebtedness with Innovatus. We realized $32.5 million in aggregate proceeds as a result of the debt financing, and the remaining $5.0 million not yet drawn on the Term Loan is available to be drawn from March 31, 2021, through June 30, 2021. The term of the Midcap loan is interest only for 36-months followed by 24-months of straight-line amortization with a final maturity date of October 27, 2025. Interest on the outstanding balance of the Term Loan shall be payable monthly in arrears at an annual rate of one-month LIBOR plus 6.35%, subject to a LIBOR floor of 1.50%.

The Term Loan is subject to a minimum revenue financial covenant measuring our last twelve months trailing revenue, tested on a monthly basis.

The Term Loan is collateralized by substantially all of our assets. The agreement contains customary negative covenants that limit our ability to, among other things, incur additional indebtedness, grant liens, make investments, repurchase stock, pay dividends, transfer assets and merge or consolidate with any other entity or to acquire all or substantially all the capital stock or property of another entity. The agreement also contains customary affirmative covenants, including requirements to, among other things, deliver audited financial statements. If we default under the Term Loan and if the default is not cured or waived, the lender could cause any amounts outstanding to be payable immediately. Under certain circumstances, the lender could also exercise its rights with respect to the collateral securing such loans. Moreover, any such default would limit our ability to obtain additional financing, which may have an adverse effect on our cash flow and liquidity.

We were in compliance with all covenants under the Term Loan as of December 31, 2020.

Cash flows

The following table summarizes our cash flows for the periods presented:

	Year ended December 31,	
($ in thousands)	**2020**	**2019**
Net cash (used in) provided by:		
Operating activities	$(6,843)	$(13,776)
Investing activities	6,728	(12,892)
Financing activities	5,486	28,561
Net increase (decrease) in cash, cash equivalents, and restricted cash	$ 5,371	$ 1,893

Operating activities

Net cash used in operating activities decreased by $6.9 million to $6.8 million in the year ended December 31, 2020 compared to $13.8 million in the year ended December 31, 2019. This decrease is attributable to a net loss of $16.7 million, partially offset by a net change in our net operating assets and liabilities of $2.4 million, and by non-cash charges of $7.5 million. The change in our net operating assets and liabilities was primarily due to increased accounts receivable $6.7 million, offset by decreases in accounts payable of $3.0 million, and decreases in inventory levels of $0.7 million. Non-cash charges primarily consisted of $3.8 million of depreciation and amortization, $1.7 million in loss on extinguishment of debt, $0.5 million of stock-based compensation, $0.5 million in change in fair value of contingent consideration, $0.4 million of paid-in-kind interest, $0.3 million in change in fair value of warrant liability, and $0.3 million of non-cash interest expense.

Investing activities

Net cash provided in (used in) investing activities was $6.7 million in the year ended December 31, 2020 compared to $(12.9) million during the year ended December 31, 2019. The increase was primarily driven by the maturity of our certificates of deposits of $10.0 million, offset by purchases of property and equipment of $3.3 million.

Financing activities

Net cash provided by financing activities was $5.5 million for the year ended December 31, 2020 compared with $28.6 million for the year ended December 31, 2019. Net cash provided by financing activities during the year ended December 31, 2020 resulted from $8.2 million in cash proceeds related to the refinance of our existing debt, net of debt extinguishment costs and debt issuance costs. Additionally, we paid out $2.6 million in contingent consideration in 2020 as compared to $0.7 million in 2019. Net cash provided by financing activities for the year ended December 31, 2019 resulted primarily from net cash proceeds of $4.5 million related to the refinance of our existing debt, and net cash receipts of $24.8 million from the issuance of Series C and D redeemable convertible preferred stock net of issuance costs.

Concentration of credit risk

For the year ended December 31, 2020, no customers accounted for more than 10% of our revenue. At December 31, 2020, no customers accounted for more than 10% of accounts receivable. For the year ended December 31, 2019, PKI accounted for 30% of revenue as they served as sole distributor of our Phenoptics platform pursuant to the transition agreement following our acquisition of the technology. At December 31, 2019, PKI comprised 21% accounts receivable. No other customers exceeded 10% of revenue for the year ended December 31, 2019.

Qualitative and Quantitative Disclosures About Market Risk

Interest rate risk

Customer financing exposure. We are indirectly exposed to interest rate risk because many of our customers depend on debt financings to purchase our platforms and systems. An increase in interest rates could make it challenging for our customers to obtain the capital necessary to make such purchases on favorable terms, or at all. Such factors could reduce demand or lower the price we can charge for our platforms and systems, thereby reducing our net sales and gross profit.

Fixed rate debt. In October 2020, we entered into Term Loan with Midcap Financial Trust which is due in October 2025, and carries a fixed interest rate of 7.85% per annum. If we refinance the Term Loan or enter into new debt arrangements, interest rates could increase and thereby increase our financing costs and increase our net loss. A hypothetical 100 basis point change in interest rates would have resulted in a $0.1 million increase in interest expense for the year ended December 31, 2020.

Bank deposit, money market and note receivable exposure. As of December 31, 2020, we had cash and cash equivalents, including restricted cash, of $17.5 million, which consisted primarily of bank deposits. The primary objective of our investment is to preserve principal and provide liquidity. These bank deposits generate interest income at variable rates below 1%. A hypothetical 100 basis point decrease in interest rates would have lowered our interest income by $0.0 million and increased our net loss by this amount.

Foreign currency risk

The majority of our revenue has been generated in the United States. As we expand our presence in international markets, to the extent we are required to enter into agreements denominated in a currency other than the U.S. dollar, our results of operations and cash flows may increasingly be subject to fluctuations due to changes in foreign currency exchange rates and may be adversely affected in the future due to changes in foreign exchange rates. To date, we have not entered into any hedging arrangements with respect to foreign currency risk. As our international operations grow, we will continue to reassess our approach to manage our risk relating to fluctuations in currency rates.

Critical accounting policies and estimates

We have prepared our consolidated financial statements in accordance with GAAP. Our preparation of these consolidated financial statements requires us to make estimates, assumptions and judgments that affect the reported amounts of assets, liabilities, revenue, expenses and related disclosures. We evaluate our estimates and judgments on an ongoing basis. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results could therefore differ materially from these estimates under different assumptions or conditions.

While our significant accounting policies are described in more detail in Note 2 to our audited consolidated financial statements, we believe the following accounting policies to be critical to the judgments and estimates used in the preparation of our consolidated financial statements.

Impairment of long-lived assets and goodwill

The Company evaluates its long-lived assets, including demo inventory, for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If indications of impairment exist, projected future undiscounted cash flows associated with the asset or asset group are compared to the carrying amount to determine whether the asset's value is recoverable. During this analysis, the Company reevaluates the significant assumptions used in determining the original cost and estimated lives of long-lived assets. Although the assumptions may vary from asset to asset, they generally include operating results, changes in the use of the asset, cash flows and other indicators of value. The Company then determines whether the remaining useful life continues to be appropriate or whether there has been an impairment of long-lived assets based primarily upon whether expected future undiscounted cash flows are sufficient to support the assets' recovery. If impairment exists, the Company would adjust the carrying value of the asset to fair value, generally determined by a discounted cash flow analysis. If the carrying value of the asset exceeds such projected undiscounted cash flows, the asset will be written down to its estimated fair value.

The Company tests goodwill for impairment annually and tests intangible assets for impairment whenever events or changes in circumstances indicate that the carrying value of the asset may not be recoverable (i.e., upon occurrence of a triggering event). The Company performs its annual impairment review of goodwill on November 1 of each calendar year (and if and when triggering events occur between annual impairment tests).

Revenue recognition

The Company follows ASC 606, Revenue from Contracts with Customers, or ASC 606.

We derive revenue from two primary sources, product revenue, which is comprised primarily of instrument sales revenue, consumables revenue, and software revenue, as well as service revenue, which is comprised of, service and warranty, and laboratory services revenue. Revenue is recognized net of applicable taxes imposed on the related transaction.

We recognize revenue when we satisfy the performance obligations under the terms of a contract and control of our products and services is transferred to our customers in an amount that reflects the consideration we expect to receive from our customers in exchange for those products and services. This process involves identifying the contract with a customer, determining the performance obligations in the contract, determining the contract price, allocating the contract price to the distinct performance obligations in the contract based on standalone selling price, and recognizing revenue when the performance obligations have been satisfied. A performance obligation is considered distinct from other obligations in a contract when it provides a benefit to the customer either on its own or together with other resources that are readily available to the customer and is separately identified in the contract. We consider a performance obligation satisfied once we have transferred control of a good or service to the customer, meaning the customer has the ability to use and obtain the benefit of the good or service.

Our agreements with customers often include multiple performance obligations, which can sometimes be included in separate contracts entered into within a reasonably short period of time. We consider an entire customer arrangement to determine if separate contracts should be considered combined for the purposes of revenue recognition.

In order to determine the stand-alone selling price, we conduct a periodic analysis to determine whether various goods or services have an observable stand-alone selling price as well as to identify significant changes to current stand-alone selling prices. If we do not have an observable stand-alone selling price for a particular good or service, then the stand-alone selling price for that particular good or service is estimated using an approach that maximizes the use of observable inputs. Our process for determining stand-alone selling price requires judgment and considers multiple factors that are reasonably available and maximizes the use of observable inputs that may vary over time depending upon the unique facts and circumstances related to each performance obligation. We believe that this method results in an estimate that represents the price we would charge for the product offerings if they were sold separately.

Taxes, such as sales, value-added and other taxes, collected from customers concurrent with revenue generating activities and remitted to governmental authorities are not included in revenue. Shipping and handling costs associated with outbound freight are accounted for as a fulfillment cost and are included in cost of sales.

The following describes the nature of our primary types of revenue and the revenue recognition policies and significant payment terms as they pertain to the types of transactions we enter into with our customers.

Product revenue

Product revenue is comprised of three major revenue streams, instrument sales, consumables, and standalone software products. Instrument sales revenue is comprised of sales of Codex and Phenoptics platforms. Consumables revenue is comprised of reagent kits. We also sell software licenses, both internally developed as well as third party software. Our standard arrangement with our customers is generally a purchase order or an executed contract. Revenue is recognized upon transfer of title. Payment terms are generally thirty to ninety days from the date of invoicing.

Service and other revenue

Service and other revenue primarily consists of instrument service and warranty, instrument installation and training, and revenue generated by our Lab Services operation, which provides sample testing services to customers. Our services are provided primarily on a fixed fee basis; from time to time these fixed fee contracts may be invoiced at the outset of the arrangements. We recognize revenue from the sale of an extended warranty, enhanced service warranty arrangements over the respective period, while revenue on installation, training and laboratory services is recognized as the services are performed. For laboratory services, we generally use the cost-to-cost approach to measure the extent of progress towards completion of the performance obligation because we believe it best depicts the transfer of assets to the customer. Under the cost-to-cost measure approach, the extent of progress towards completion is measured based on the ratio of costs incurred to date to the total estimated costs at completion of the performance obligation. Revenues are recorded proportionally as costs are incurred. Payment terms are generally thirty to ninety days from the date of invoicing.

The Company records shipping and handling billed to customers as service and other revenue and the related costs in cost of other revenue in the consolidated statement of operations.

Contract assets and contract liabilities

The Company’s contract liabilities consist of upfront payments for service-based warranties on instrument sales. The Company classifies these contract liabilities in deferred revenue as current or noncurrent based on the timing of when the Company expects to service the warranty.

Costs to obtain or fulfill a contract

Under ASC 606, the Company is required to capitalize certain costs to obtain customer contracts and costs to fulfill customer contracts. These costs are required to be amortized to expense on a systemic basis that is consistent with the transfer to the customer of the goods or services to which the asset relates, compared to previously being expensed as incurred. As a practical expedient, the Company recognizes any incremental costs to obtain a contract as an expense when incurred if the amortization period of the asset is one year or less.

Redeemable convertible preferred stock

The Company has classified redeemable convertible preferred stock as temporary equity on the accompanying consolidated balance sheet because it becomes redeemable due to the passage of time or could become redeemable due to certain change in control clauses that are outside of the Company's control. The redeemable convertible preferred stock is adjusted to the redemption value over time through the date of the earliest redemption date. These increases are recorded as charges against retained earnings, if any, and then to additional paid-in capital. Then, in the absence of additional paid-in capital, the accretion is charged to the accumulated deficit.

Stock-based compensation

We maintain an incentive compensation plan under which incentive stock options and nonqualified stock options are granted primarily to employees and non-employee consultants. Stock-based compensation cost is measured at the grant date, based on the fair value of the award, and is recognized as expense over the requisite service period. The fair value of stock-based awards to employees is estimated using the Black-Scholes option pricing model. We record forfeitures as they occur.

Stock-based compensation expense for non-employee stock options is measured at the grant date based on fair market value using the Black-Scholes option pricing model and is recorded as the options vest. Prior to January 1, 2020, nonemployee stock options subject to vesting were revalued periodically over the requisite service period, which was generally the same as the vesting term of the award. From January 1, 2020, the grant date fair market value of non-employee stock options is recognized in the consolidated statement of operations on a straight-line basis over the requisite service period and forfeitures are recognized as they occur.

Common Stock Valuations Prior to our IPO

There has been no public market for our common stock to date. As such, the estimated fair value of our common stock has been determined at each grant date by our board of directors, with input from management, based on the information known to us on the grant date and upon a review of any recent events and their potential impact on the estimated per share fair value of our common stock. As part of these fair value determinations, our board of directors obtained and considered valuation reports prepared by a third party valuation firm in accordance with the guidance outlined in the American Institute of Certified Public Accountants Technical Practice Aid, Valuation of Privately-Held-Company Equity Securities Issued as Compensation.

As of December 31, 2020, in contemplation of an initial public offering, we estimated the enterprise value of our business using a hybrid approach in determining the fair value of our common stock that includes a probability-weighted expected return method, or PWERM, and an option pricing method, or OPM. Under a PWERM, the fair market value of the common stock is estimated based upon an analysis of future values for the enterprise assuming various future outcomes. Within one of those potential outcomes, we utilized the OPM. The OPM treats the rights of the holders of convertible preferred stock and common stock as equivalent to that of call options on any value of the enterprise above certain break points of value based upon the liquidation preferences of the holders of preferred stock, as well as their rights to participation and conversion. Based on the timing and nature of an assumed liquidity event in each scenario, a discount for lack of marketability either was or was not applied to each scenario, as appropriate. We then probability-weighted the value of each expected outcome to arrive at an estimate of fair value per share of common stock.

In addition to considering the results of these third party valuation reports, our board of directors used assumptions based on various objective and subjective factors, combined with management judgment, to determine the fair value of our common stock as of each grant date, including:

- the prices at which we sold shares of preferred stock and the superior rights and preferences of the preferred stock relative to our common stock at the time of each grant;
- external market conditions affecting the life sciences research and development industry and trends within the industry;
- our stage of development and business strategy;
- our financial condition and operating results, including our levels of available capital resources, and forecasted results;
- developments in our business;
- the progress of our research and development efforts;
- equity market conditions affecting comparable public companies; and
- general United States market conditions and the lack of marketability of our common stock.

Application of these approaches involves the use of estimates, judgment and assumptions that are subjective, such as those regarding our expected future revenue, expenses and future cash flows, discount rates, market multiples, the selection of comparable companies and the probability of possible future events. Changes in any or all of these estimates and assumptions or the relationships between those assumptions impact our valuations as of each valuation date and may have a material impact on the valuation of our common stock. For valuations after the completion of this initial public offering, our board of directors will determine the fair value of each share of underlying common stock-based on the closing price of our common stock as reported on the date of grant.

Recent accounting pronouncements

For information on recently issued accounting pronouncements, see Note 2 to our consolidated financial statements in this prospectus.

JOBS Act accounting election

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. We have elected to avail ourselves of this extended transition period, and, as a result, we will not be required to adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies. We intend to rely on other exemptions provided by the JOBS Act, including without limitation, not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act of 2002.

Smaller reporting company status

We are also a "smaller reporting company," meaning that the market value of our stock held by non-affiliates plus the proposed aggregate amount of gross proceeds to us as a result of this offering is less than $700 million and our annual revenue is less than $100 million during the most recently completed fiscal year. We may continue to be a smaller reporting company after this offering if either (i) the market value of our stock held by non-affiliates is less than $250 million or (ii) our annual revenue is less than $100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700 million. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

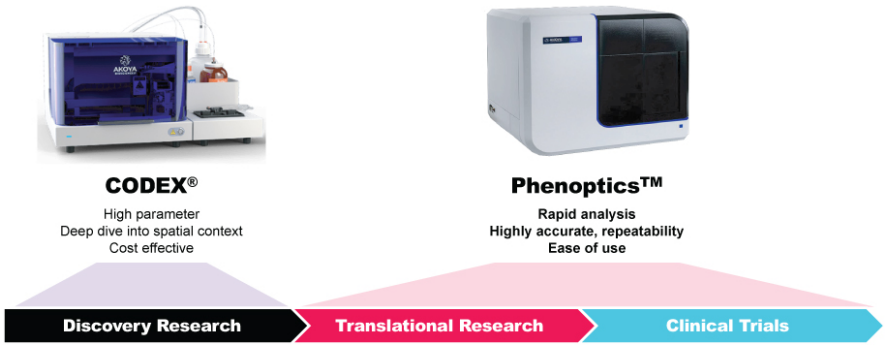
BUSINESS

Overview

We are an innovative life sciences technology company delivering spatial biology solutions focused on transforming discovery and clinical research. Our mission is to deliver a revolutionary new class of spatially derived biomarkers that empower life sciences researchers to better understand disease and clinicians to improve patient outcomes. Spatial biology refers to a rapidly evolving technology that enables academic and biopharma scientists to detect and map the distribution of cell types and biomarkers across whole tissue samples at single cell resolution, enabling advancements in their understanding of disease progression patient response to therapy. Through our CODEX and Phenoptics platforms, reagents, software and services, we offer end-to-end solutions to perform tissue analysis and spatial phenotyping across the full continuum from discovery through translational and clinical research.

Our spatial biology solutions measure cells and proteins by providing biomarker data in its spatial context while preserving tissue integrity. Biomarkers are objective measures that capture what is happening in a cell or tissue at a given moment. Current genomic and proteomic methods, such as NGS, single-cell analysis, flow cytometry and mass spectrometry, are providing meaningful data but require the destruction of the tissue sample for analysis. While valuable and broadly adopted, these approaches allow scientists to analyze the biomarkers and cells that comprise the tissue but do not provide the fundamental information about tissue structure, cellular interactions and the localized measurements of key biomarkers. Furthermore, current non-destructive tissue analysis and histological methods provide some limited spatial information, but they only measure a minimal number of biomarkers at a time and require expert pathologist interpretation. Our platforms address these limitations by providing end-to-end solutions that enable researchers to quantitatively interrogate a large number of biomarkers and cell types across a tissue section at single cell resolution. The result is a detailed and computable map of the tissue sample that thoroughly captures the underlying tissue dynamics and interactions between key cell types and biomarkers, a process now referred to as spatial phenotyping. We believe that we are the only business with the breadth of platform capabilities that enable researchers to do a deep exploratory and discovery study, and then further advance and scale their research through the translational and clinical phases, leading to a better understanding of human biology, disease progression and response to therapy.

We offer two distinct platforms for spatial phenotyping, each designed to serve the unique needs of our customers in the discovery, translational and clinical markets. The first, CODEX, is an ultra-high parameter and cost-effective platform ideally suited for discovery research with the ability to identify more than 40 biomarkers in a tissue sample. The second, Phenoptics, is a high-throughput platform with the automation and robustness needed for translational and clinical applications. Both offer seamless and integrated workflow solutions for our customers, including important benefits such as flexible sample types, automated sample processing, scalability, comprehensive data analysis and software solutions and dedicated field and applications support. With these platforms, our customers are performing spatial phenotyping to further advance their understanding of diseases such as cancer, neurological and autoimmune disorders, and many other therapeutic areas.



Our co-founder and director, Dr. Garry Nolan, originally developed our CODEX technology to better identify biomarkers in discovery research while leading a team at Stanford. We license certain patents, know-how and proprietary technology utilized in our CODEX instrument from Stanford. In order to expand our offerings to the translational and clinical markets, we acquired our Phenoptics platform in 2018 from PKI, from whom we license certain patents incorporated into our Phenoptics instruments.

As of December 31, 2020, we have over 550 instruments installed across a broad group of customers throughout North America, Europe and APAC, reflecting an increase of 27% in the number of instrument placements over 2019. Our full set of proprietary reagents, software and services allows us to drive a stream of attractive, recurring and high margin revenue through our installed base, which will grow as we continue to expand our instrument base and implement workflow advancements. We generated total revenue of $42.2 million in the year ended December 31, 2019 and $42.4 million in the year ended December 31, 2020, successfully managing through significant COVID-19 headwinds, realizing year-over-year growth and minimizing losses through cost containment. We incurred net losses of $14.8 million for the year ended December 31, 2019 and $16.7 million in the year ended December 31, 2020.

Our Competitive Strengths

We believe the growth of our business will be propelled by our competitive strengths, including:

Established leader in the spatial biology market with a strong competitive position and proven products. We believe we are the leading spatial biology company, offering products to hundreds of customers across a diverse base, including leading biopharma companies, academic research centers and governmental institutions worldwide. As the pioneers and leaders in the spatial biology market, we view our suite of solutions as uniquely positioned to address the varying customer needs across all market segments, from discovery through translational and clinical research. Our instrument base has expanded significantly over the last several years with over 550 instruments currently in the market as of December 31, 2020, a 27% increase over 2019. The rate of publications with our technology as a centerpiece has accelerated greatly, with 109 peer-reviewed publications written in 2020, a 374% increase over 2019. A key driver of these publications and our commercial expansion is the growing body of evidence that spatial biology solutions are increasingly becoming preferred as a biomarker platform of choice. A seminal JAMA Oncology publication in 2019 establishes the predictive power of spatial biomarker technologies in predicting response to immuno-oncology therapeutics versus the current technologies such as gene expression, NGS and standard diagnostic PD-L1 biomarker assays. We believe that the combination of our broad customer base, expert management team, large instrument installed base, intellectual property protection and extensive and accelerating publication list helps establish our leading position in spatial biology.

Comprehensive solutions that address the entire continuum. We are a fully dedicated spatial biology company with a purpose-built portfolio offering instruments, consumables, related software and services to serve the unique needs of our customers from discovery through translational and clinical research. Our CODEX platform is ideal for discovery research, providing ultra-high parameter biomarker discovery,

with the ability to analyze more than 40 biomarkers at a time at single-cell resolution across the entire tissue sample. Our Phenoptics platform is ideal for translational and clinical research providing a fully automated end-to-end solution with high reproducibility and throughput and ability to easily process over 25 samples a day. Providing complete solutions across this full continuum allows us to serve our customers' full biomarker lifecycle. Comprehensive biomarker discovery is first enabled on CODEX. Potentially predictive biomarkers of interest for translational and clinical studies are then analyzed at scale on Phenoptics.

Relationships with leading biopharma companies, top research institutions and medical centers. We have relationships with thought leaders such as Dana Farber Cancer Institute, Johns Hopkins University, UCSF, and MD Anderson, and many other leading biopharma companies, top research institutions and medical centers and contract research organizations. These collaborations and partnerships help demonstrate the utility of our solutions across a broad array of applications, including immuno-oncology, immunology, neuroscience and developmental biology. As we partner with leading companies and institutions, we gain access to valuable customer feedback and insight. With the use of our solutions informing their development efforts:

- *Stanford University and the University of Bern* used the CODEX platform for deep phenotyping of advanced-stage colorectal cancer patient tissue with more than 40 protein markers simultaneously, and at single-cell resolution. Through their use of our technology, they defined a new biological classification unit of cellular groups known as "neighborhoods". These neighborhoods represent a completely novel organizing principle for understanding cellular activity in the tumor microenvironment and provide a robust analytical framework to better understand colon cancer progression, potentially novel diagnostics and new targets for therapeutic intervention.
- *Johns Hopkins University* developed an interdisciplinary partnership between the Hopkins Kimmel Cancer Center and the Department of Physics and Astronomy called AstroPath with our Phenoptics platform as the centerpiece. Leveraging their leadership in both cancer research and astrophysics, AstroPath is applying astronomy algorithms to Phenoptics imaging data to rapidly identify and optimize predictive phenotypic signatures predicting response to immuno-therapies. With our support, the longer-term aim is to create a publicly accessible archive of analyzed tumor samples to help accelerate the field of spatial biology-based immuno-oncology biomarkers.
- *Dana Farber Cancer Institute and Brigham Health* recently announced the availability of their ImmunoProfile assay, an assay they developed on our Phenoptics platform to profile the tumors of immuno-therapy eligible patients. This assay is physician orderable and integrates into their clinical pathology workflow alongside NGS-based tumor profiling.

Large, addressable and rapidly evolving market. The spatial biology market sits within a larger life sciences technology market. Within this market, spatial biology is currently estimated to be over $17 billion. The market for spatial biology encompasses the full research and drug development continuum, ranging from discovery through translational and clinical research markets. Each of these specific market segments have unique application and workflow needs and require fit for purpose product offerings. Today, our products and solutions are primarily sold into the cancer discovery and translational markets, representing a $5 billion addressable market. We believe that our offerings can be readily extended to serve adjacent application areas, including immunology and neurobiology, and as well applications in clinical markets, certain of which may require obtaining FDA approval for our products. We currently estimate that within the spatial biology market, half of the opportunity is in the discovery and translational research markets and the other half is in the clinical market. With the growing adoption and innovation of spatial biology solutions and as spatial phenotyping is further validated through rapid acceleration of peer-reviewed publications, we believe the global TAM will continue to grow over the near and long-term horizon. Given the critical need for spatial biology, we believe our products are uniquely suited to address the specific needs of researchers across this continuum from discovery through translational and clinical markets.

Our people. Our success begins with our people. All of our employees contribute to keeping Akoya at the forefront of the spatial biology market, from research and development, to sales and marketing, to operations and management. Our management team has extensive industry experience among a diversified base of leading companies in the healthcare industry, as well as significant experience with acquisitions and integration of technology. The experiences and skills gained during these prior multi-disciplinary

employments will allow our team to continue to execute on current plans and identify future opportunities and build products and services to meet them.

Our Growth Strategy

Our growth strategy includes the following key elements:

Enhance sales and marketing efforts to drive adoption of our solutions with new and existing customers. Our solutions enable researchers to map the distribution of key cell types and biomarkers in normal and disease tissue. We recently commissioned a report of researchers and surveyed their views of and plans to invest in spatial biology platforms and solutions, and approximately 44% of respondents indicated that they intend to purchase a spatial profiling platform. To capitalize on this opportunity to drive adoption of our platforms across the entire market, we intend to invest heavily to expand our sales and marketing organizations, increase the scale of our outbound marketing activities, invest in our commercial organization and deliver new, market-leading solutions to our customers. Sales productivity and output will be achieved by expanding our global team of dedicated regional instrument and reagents sales specialist, building an inside sales team and hiring additional dedicated scientific pre- and post-sales applications specialists. A key focus of the expanded applications specialists will be to drive further platform adoption and utilization within our existing customer base to increase our recurring proprietary reagent and software revenue. Application expansion, workflow improvements, the continued endorsement through peer-reviewed publications, a significant presence at trade conferences and an active digital platform are examples of key drivers of continued and growing market awareness and the expansion of our commercial footprint within new and existing customers.

Invest in new applications, content development and workflow improvements to drive pull through. Our research and development team is dedicated to continuously developing and improving our instruments, reagents menu, software solutions delivering a full end-to-end workflow and expanding our menu applications. Our instruments are designed to be used with our proprietary reagents. Currently, we offer an extensive menu of reagents, kits, antibodies and other consumables across our CODEX and Phenoptics platforms. Researchers have the ability to choose a mixture of our products to customize and design panels to study their biomarkers of interest. As our research and development team identify and launch new applications and biomarker content, we expect to drive incremental pull through revenue from existing and new customers. Similarly, our workflow improvements and the acceleration of data analysis through continued software advancements will further increase customers' use of our platforms. We believe this incremental software revenue and consumable pull through will help solidify our solutions with researchers and improve our recurring revenue base and margin profile.

Continued expansion of next-gen cloud-based data analysis and collaboration platform. We are focused on delivering rapid and advanced data analysis and visualization tools that accelerate the timeline from image acquisition to extracting biological meaning. Because many of our customers work on projects collaboratively both internally and externally, it is imperative to provide a platform that enables data sharing and collaboration, as well as powerful next-generation automated data analysis solutions. Our cloud-based Proxima software is an open solution designed to store and share images as well as support visualization and analysis solutions available in the market. The ability to enable artificial intelligence methods will help solve the growing big data challenges associated with spatial biology and enable the accelerated development of even more advanced analysis methods, thereby increasing the speed of collaborations and biomarker discovery across laboratories. These improved analytical capabilities of our solutions will help increase further incremental use of our instruments and consumables.

Investment in clinical developments to demonstrate validity. Our collaborations with key opinion leaders in major cancer institutions, universities and large biopharma customers provide us with visibility into our platform's potential to advance from translational research to true clinical use. The learnings from these institutions directly informs the required platform investments, clinical studies and regulatory strategy necessary to continue this advancement. Partnerships such as those with UCSF, Johns Hopkins and the Dana Farber Cancer Institute help drive the demonstration and validation of the clinical utility of our platform. In partnership with these and other key opinion leaders, we will establish clinical industry standards that further solidify our platform as the go-to clinical spatial biology solution. We plan to pursue the development and publication of data on our approach, similar to the approach taken by industry stakeholders

involved in NGS-based tests for targeted cancer therapies. In parallel, through our continued partnership with key biopharma companies, particularly with their immuno-oncology franchises, will hope to establish our platforms as the preferred clinical trial biomarker solution and enable potential companion diagnostic partnerships in the long term. By providing our end-to-end workflows to industry leading partners and clinicians and directly participating in validating the clinical utility of our platform through peer-reviewed publications, we will establish an ongoing cadence and pipeline to further improve our workflows and deliver clinical proof points for our sales and marketing teams to accelerate adoption in the clinical diagnostic market.

Industry and Market Opportunity

Genomic analysis techniques have evolved from bulk genomics to single-cell analysis, and proteomic techniques such as mass spectrometry are advancing to provide cutting-edge unbiased approaches. In parallel, there is a growing need in areas such as immuno-oncology for more predictive biomarkers that can accurately predict a patient's response to therapy. Spatial biology has emerged as a potential answer to these needs and represents one of the next major frontiers in life sciences research. It has become a key area of focus for researchers and clinicians alike as spatial phenotyping is able to measure protein and cellular interactions, while maintaining spatial context within a selected tissue sample. The result is a visual and computable measurement of histological patterns and an in-depth understanding of disease pathology, adding a new dimension of insights from discovery through clinical and translational research. By providing single-cell resolution with spatial context within a single platform, researchers are able to achieve an understanding of how even small subpopulations of cells can play pivotal roles in disease pathology and patient outcome. In addition, recent innovations within proteomics have enabled unprecedented identification of novel proteins, expanding the need for spatial biology platforms that can functionally characterize these newly discovered proteins.

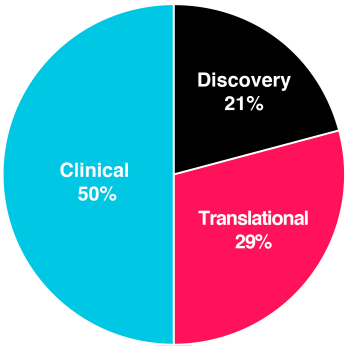
While spatial biology has many applications, spanning from early discovery through clinical research, the leading applications today include:

- *Immuno-oncology:* profiling of a tumor and its microenvironment.
- *Immunology:* supporting sub-specialties such as autoimmune disorders and transplant medicine.
- *Neuroscience:* characterizing neuroinflammation and neurodegeneration.
- *Infectious disease*: understanding the underlying biology of infectious diseases and immune response.
- *Developmental biology:* understanding tissue differentiation and stem cell biology to inform cell therapy development.
- *Dermatology:* immunophenotyping atopic dermatitis, psoriasis and similar dermatological conditions.
- *Other notable applications:* immunology research and broader disease pathology.

The spatial biology market sits within a larger life sciences technology market. Within this market, spatial biology is currently estimated to be over $17 billion across the discovery, translational and clinical research markets with immediate applications in cancer — especially immuno-oncology — as well as immunology, neurobiology, autoimmune disorders, infectious disease, and more. The market for spatial biology encompasses the full research and drug development continuum ranging from discovery through translational and clinical research markets. Each of these specific market segments have unique application and workflow needs and require fit for purpose product offerings. Today, our products and solutions are primarily sold into the cancer discovery and translational markets, representing a $5 billion addressable market. We believe that our offerings can be readily extended to serve adjacent application areas, including immunology and neurobiology, and as well applications in clinical markets, certain of which may require obtaining FDA approval for our products. We currently estimate that within the spatial biology market, half of the opportunity is in the discovery and translational research markets and the other half is in the clinical market. With the growing adoption and innovation of spatial biology solutions and as spatial phenotyping is further validated through rapid acceleration of peer-reviewed publications, we believe the

global TAM will continue to grow over the near and long-term horizon. Given the critical need for spatial biology, we believe our products are uniquely suited to address the specific needs of researchers across the continuum from discovery through translational and clinical markets.

Current spatial biomarker market for cancer, immunology and neurobiology >$17bn



Single-Cell with Spatial Context

Single-cell analysis enables the unbiased discovery of known and unknown cell types within a sample; it measures gene and protein expression on a cell-by-cell basis by preserving information about the cell of origin for each analyte measured. Adding spatial context to single-cell analysis provides a wealth of information to visualize tissue organization and disease pathology on a molecular level. Spatial phenotyping using multiplex immunofluorescence ("mIF") allows for efficient mapping of cell-to-cell interactions and expression of key biomarkers across an entire tissue. Therefore, by integrating single-cell resolution and spatial context in a single solution, we provide both the "what" and "where" that can lead to critical insights that would otherwise be unattainable.

Pressing Need for more Predictive Biomarkers in Immuno-Oncology

Over the last several years, immuno-oncology has been among the most active therapeutic areas at large pharmaceutical companies with an estimated market size of $33 billion in 2019 and over 5,000 active clinical trials. As a result, there has been a heightened focus and significant investment dedicated to the discovery of predictive biomarkers in immuno-oncology that provide more predictable measures of disease progression and response to therapy in the clinical setting. A recent research study, published in JAMA Oncology, assessed the probability of current biomarker technologies such as NGS, RNA analysis, standard histology and spatial phenotyping to predict patient response to immuno-therapies and found spatial phenotyping to be the superior method for biomarker analysis. In addition, the technology's ability to monitor the physiological states of tumor cells over time, while maintaining integrity of the tissue, enables researchers to find correlations to drug resistance and tumor mutations, which could meaningfully facilitate the discovery and development of the next-generation of cancer diagnostics and therapies.

Market needs

While NGS and single-cell analysis have led to paramount scientific advances in de-mystifying the genome, and flow cytometry and mass spectrometry have enabled researchers to gain valuable data troves used for improved biomarker analysis, these technologies fail to provide any spatial context to the genes, proteins and cells measured. As a result, there is a clear and unmet need for spatial biology tools in the life sciences research market, from discovery through translational and clinical research. We view the emergence

of spatial analysis as largely complementary to current technologies by offering deeper more contextual insights into the genome, proteome and cellular activity.

Discovery researchers are limited by the tools available within their arsenal. In recent years, the research community has fully embraced single-cell solutions as they have delivered unprecedented insights and facilitated novel medical breakthroughs. However, while single-cell technologies continue to evolve and improve, providing greater insights into cellular makeup and biomarker expression, existing technologies require the full destruction of the tissue and sacrifice all spatial information. Thus, while significant value has been realized from single-cell analysis, spatial phenotyping promises to be the next-generation biomarker solution aiming to provide an in-depth understanding of biological function and disease pathology through a visual and computable map of histological patterns.

Clinical researchers are facing a lack of predictive biomarkers, particularly in immuno-oncology, which limit successful patient outcomes and efficiency in clinical development and deployment of novel therapies. Although targeted therapies have enjoyed many notable successes — to which NGS has been a key driver of this innovation — there remains a critical need for validated predictive biomarkers in immuno-oncology, which could disrupt the current paradigm for patient care and drug development. While significant efforts are being made in the discovery of more predictive biomarkers in immuno-oncology, there is still an ongoing and recognized unmet need. Just as NGS did for targeted cancer therapeutics, we believe spatial biology solutions will provide the necessary biological understanding and predictive power to further accelerate the field of immuno-oncology. All of our products and solutions sold today are for research use only. For future applications in clinical markets, our products may require FDA approval.

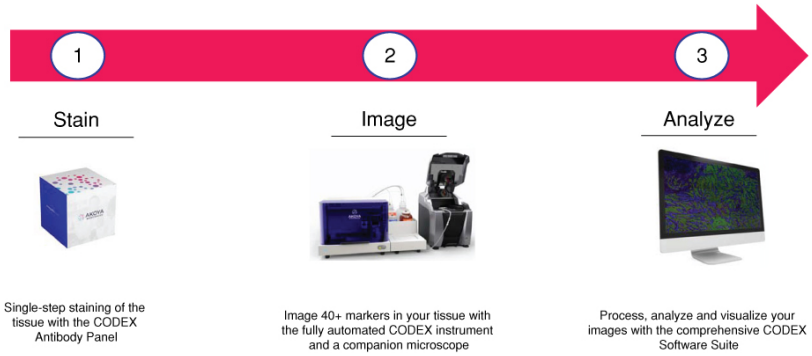
Our Platforms

We offer two distinct platforms for spatial phenotyping, each designed to serve the unique needs of our customers in the discovery, translational and clinical markets. The first, CODEX, is an ultra-high parameter and cost-effective platform ideally suited for discovery and research. The second, Phenoptics, is a high-throughput platform with the automation and robustness needed for translational and clinical applications. Each offer seamless and integrated workflow solutions for our customers, including important benefits such as flexible sample types, automated sample processing, scalability, comprehensive data analysis and software solutions and dedicated field and applications support. With these platforms, our customers are performing spatial phenotyping and developing a deeper understanding of complex diseases such as cancer, neurological and autoimmune disorders, and many other therapeutic areas. We believe through these two platforms, we are fulfilling our mission to empower life sciences researchers and clinicians to better understand the onset, advancement, treatment, prevention and monitoring of disease.

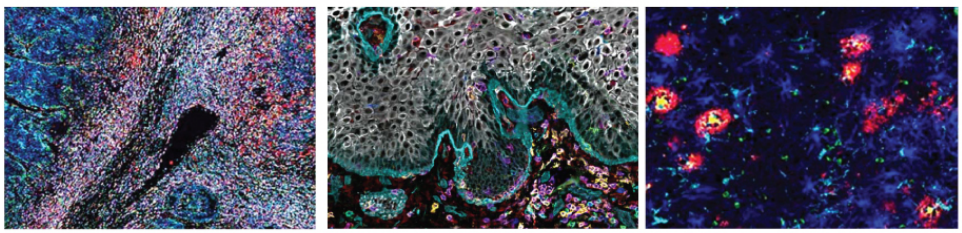
CODEX

Our CODEX (Co-Detection by indEXing) instrument is a powerful, yet simple, compact bench-top fluidics system that integrates with a companion microscope to automate image acquisition. It provides a comprehensive spatial biology solution, converting our customer’s standard fluorescent microscope into an automated imaging system to produce ultra-high parameter multiplex images capable of providing in situ analysis at the cellular and subcellular scales. CODEX is the only instrument capable of efficiently capturing greater than 40 biomarkers in a single tissue sample at single-cell resolution, while preserving tissue architecture, making it the ideal instrument for biomarker discovery. With over 120 biobanks around the world today, most of the researchers utilizing these biobanks are using inferior products, limiting discovery and spending valuable resources. Originally developed in the lab of Dr. Garry Nolan at Stanford University, CODEX uses antibodies conjugated to a proprietary library of oligonucleotides called Barcodes. This enables customizable panels of greater than 40 antibodies to be combined for a single tissue staining reaction.

Not only is CODEX a powerful tool for discovery, it is also highly intuitive, and appeals to both novice and experts in the field of tissue analysis. The experimental workflow for CODEX is summarized below.



CODEX Image Examples



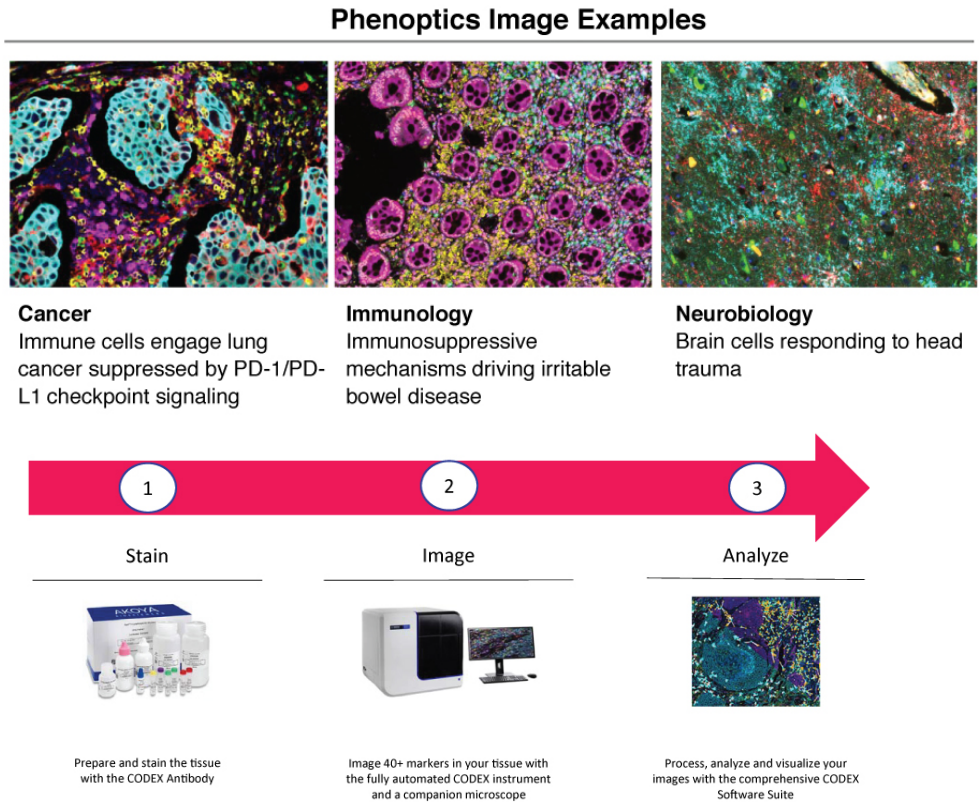
Cancer
Immune cells infiltrating tumor in renal tissue

Immunology
Psoriasis skin sample showing immune cells infiltration

Neurobiology
Inflammation association with plaque formation in Alzheimer brain tissue

Phenoptics

For a deeper understanding of disease and patient response to therapy in large scale studies, translational and clinical researchers need a robust and automated spatial biology solutions. Our Phenoptics platform enables researchers to visualize, analyze, quantify and phenotype cells in situ, in fresh frozen or FFPE tissue sections, and tissue microarrays (“TMAs”) utilizing an automated and high-throughput workflow. Proprietary multispectral imaging removes autofluorescence background and precisely measures fluorescent values for each biomarker with subcellular resolution, enabling researchers to capture the multiple interactions occurring between key biomarkers and cells. In contrast, inferior solutions on the market lack the necessary ability to precisely isolate and measure the different fluorescence channels due to color bleed. Users of our platform have confidence in the accuracy of the quantified interactions occurring in the biology of the cell. In addition, just as with CODEX, we offer a simple and easy workflow to stain, image and then analyze tissue samples for the high throughput translational and clinical applications.



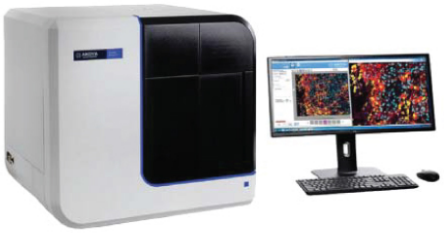
- The Phenoptics product line is currently comprised of three scanners: the Mantra 2 Quantitative Pathology Workstation, Vectra 3 Automated Quantitative Pathology Imaging System, and Vectra Polaris Automated Quantitative Pathology Imaging System. The Vectra Polaris is the most recent in this family of microscopes and represents our signature and most popular solution in the translational and clinical markets.
  - *Mantra 2 Quantitative Pathology Workstation*: The Mantra 2 Quantitative Pathology Workstation is a single slide manual microscope that incorporates multispectral imaging technology, image acquisition and analysis with the inForm software and can be used with a variety of reagents including Akoya's Opal reagent kits (as further described below). This instrument is compact and ideal for initial multispectral imaging for assay development prior to scale up on our Vectra Polaris system, and is easily integrated with our Phenoptics software.

Mantra Quantitative Pathology Workstation

- *Vectra 3 Automated Quantitative Pathology Imaging System:* Vectra 3 is an automated microscope with six-slide capability and pioneered the ability to accurately detect and measure multiple weakly expressed and overlapping biomarkers on a single tissue at the single cell level, allowing for insight to biomarker expression and morphometric characteristics in intact tissue sections. Using our Phenoptics software paired with our Vectra 3 instrument, researchers are able to automatically identify specific tissue types, accelerating research efforts.

Vectra 3 Automated Quantitative Pathology Imaging System

- *Vectra Polaris Automated Quantitative Pathology Imaging System:* Vectra Polaris is our premier and newest digital pathology slide scanner featuring MOTiF whole-slide multispectral scanning of up to 7 biomarkers with an 80 slide capacity. Because of the proprietary optical components coupled to our reagents and software, it is uniquely able to accurately detect and measure weakly expressed and overlapping biomarkers within a single tissue section. It also supports multiple applications including Hematoxylin and Eosin ("H&E"), immunohistochemistry (IHC), mIF on fresh frozen or FFPE tissue section or TMA. The whole slide multispectral imaging capability creates a simpler, more robust workflow as fields of view do not need to be selected, eliminating selection bias and accelerating the time to result. The Vectra Polaris can also scan brightfield slides for downstream analysis, such or traditional DAB IHC, or scan regions of interest across a whole slide with up to 9 biomarkers. The fully automated process provides a recorded whole slide scan, meaning no re-scans and eliminating redundant work.



Vectra Polaris Automated Quantitative Pathology Imaging System

Our Proprietary Reagents

CODEX Reagents

- *CODEX Antibodies:* We offer a rapidly growing menu of validated antibody content for use with CODEX. Today, our menu includes 61 unique antibodies of which 23 are validated for use with human FFPE tissue, 23 validated for use with human fresh frozen tissue and 25 validated for use with mouse fresh frozen tissue.
- *CODEX Antibody Conjugation Kit*: We offer an antibody conjugation kit that allows customers to label their own proprietary antibodies of interest and modify them for use with CODEX. The antibody conjugation kit can be used to add antibodies to existing content or develop entirely new content for new applications.
- *CODEX Assay Kit***:** We provide the full suite of additional proprietary buffers and reagents needed as part of the full CODEX workflow.

Phenoptics Reagents

We offer a number of proprietary reagents that are required for the use of our platforms and are a key part of our overall solution for our customers. These reagents include our Opal Predesigned Panels, Tyramide signal amplification ("TSA") reagents and Opal kits.

- *Opal Predesigned Panels:* Our Opal MOTiF Antibody Panel Kits are an offering that can be used by the Vectra Polaris Automated Quantitative Pathology Imaging System and offers pre-optimized, ready-to-use primary and secondary antibody panels. Containing the six most clinically relevant biomarkers on lung cancer and melanoma, these panels are tailored for translational immuno-oncology research, offering speed and simplicity. These panels offer a fully validated plug-and-play mIF staining protocol that is very flexible, offering adjustability of the signal intensity strength for each sample's unique biomarker expression levels.
- *TSA Reagents:* Our TSA reagents are used for the detection and amplification of signals in IHC, immunofluorescence (IF) or in situ hybridization (ISH) protocol. For this technique to be successful, whether used as part of our Phenoptics multiplex IHC platform or other detection system, protocol optimization is critical.
- *Opal Kits:* Through our Opal Multiplex IHC kits, we offer multiplex results accessible to anyone who works with standard immunohistochemistry. Unlike other offerings in the market, researchers using our Opal offering can select antibodies for simultaneous mIF detection based on performance, rather than species, offering greater insight to our customers for their research. These kits are optimized for reliable spectral unmixing and simultaneous measurement of three to eight protein targets and a nuclear stain that make them more reliable than other products in the market. Through the use of our Opal kits, researchers are able to gain more information from precious and scarce samples, while identifying multiple cell phenotypes and retaining spatial and morphological context, often lost with bulk measurements and flow cytometry. We believe that by using our proprietary

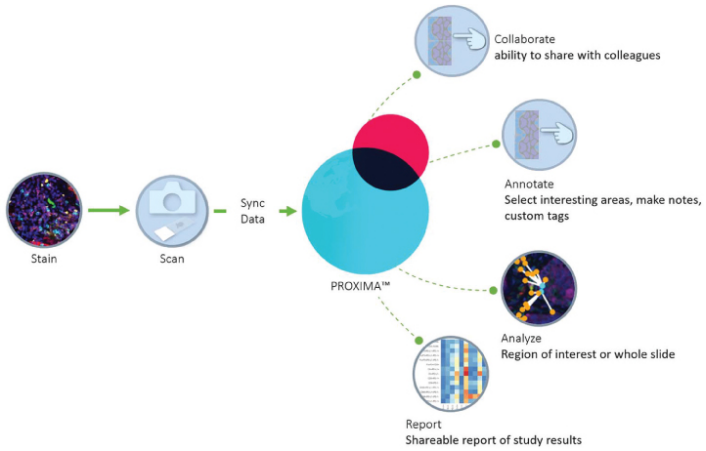
Opal kits, researchers can be confident in the information they are receiving and viewing, all while preserving the tissue for further study.

Our Software Services

We offer a number of different software options for our solutions to provide customers with the flexibility and ability to perform their desired work.

Proxima

- Proxima is a cloud-based platform designed to store, analyze and share spatial data. Tissue images generated by our CODEX and Phenoptics platforms can be easily and quickly uploaded in Proxima for storage, sharing and analysis. Proxima is designed to not only perform rapid cloud-based analysis but also integrates with our desktop tissue analysis software for those customers preferring local analysis with our inForm, Phenochart, and phenoptrReports platforms. The instant and distributed access of experimental results and the ability to collaborate globally through Proxima improves our customer's productivity, ongoing use of our platforms and provides a growing and recurring revenue stream. Furthermore, using application programming interface (API), Proxima can integrate with third party or user developed data analysis solutions. This provides infinite flexibility in the number of data analysis solutions the end user can chose from to meet their application needs.



Analysis Software

- *inForm Tissue:* A patented automated image analysis software package for accurately visualizing and quantifying biomarkers in tissue sections. Our software can be tailored to enable biomarker analysis in both solid tissues and TMAs from H&E, multiplexed IHC, and multiplexed immunofluorescence data. The automated, trainable algorithms permit detection, cell and tissue segmentation and identification of multiple markers within a sample. Once trained, inForm will locate and analyze user-specified regions automatically across an entire image or multiple images. Large numbers of images can be rapidly batch processed, allowing analysis that might have taken days to be done in a matter of minutes.
- *phenoptr & phenoptrReports:* Additional software to enhance the experience with our platforms. Phenoptr provides functions that consolidate and analyze output tables created by inForm software, while phenoptrReports generates shareable reports and visualizations based on the phenoptr output in an intuitive front-end GUI.

Our Biopharma Services

Our Contract Research Services ("CRS") laboratory enables biopharma clients to access the Phenoptics platform in a fee-for-service model to support the discovery and validation of predictive biomarkers to elucidate drug mechanism of action, better understand the underlying biology of disease in translational research studies and perform patient stratification and selection. The services we offer span the entire Phenoptics workflow and include sample preparation, tissue staining, tissue imaging, image analysis pathological review and reporting. Our CRS lab leverages tissue autostainers, the Vectra Polaris and our proprietary software to provide automation across the entire workflow. Our strategic focus is partnering with top biopharma companies on clinical trials and retrospective and prospective clinical studies. Ongoing expansion of this business and progression of our partnerships to later stage clinical trials may ultimately lead to companion diagnostic partnerships with these top biopharma companies.

Suppliers and Manufacturing

We outsource the manufacturing and distribution of our instruments and reagents. We use one contract manufacturer to produce our Phenoptics instruments, another to produce our Codex instruments, and a third to produce all reagent kits. The manufacturers procure the majority of materials needed for the finished good production from many different suppliers, with some of those suppliers located in the US and others located outside the U.S. See "Risks Related to Our Business and Strategy — Our third party manufacturers are dependent upon third party suppliers, including single source suppliers, making us vulnerable to supply shortages and price fluctuations, which could harm our business."

Distribution to customers generally occurs from the manufacturing location. We manufacture one sub-assembly related to the Phenoptics instruments in our Marlborough, MA facility. Inventory is generally held at the contract manufacturer locations or at a third-party warehouse in Massachusetts.

Employees

As of December 31, 2020, we had 169 employees, including 47 in research and development, 67 in sales, marketing, support and business development, 35 in general and administrative and 20 in contract research, manufacturing and field service support. None of our United States employees are represented by a labor union or covered under a collective bargaining agreement and we consider our relationship with our employees to be positive.

Facilities

Our corporate headquarters, research and development facilities and manufacturing and distribution centers are located in Marlborough, Massachusetts and Menlo Park, California, where we lease approximately 25,537 and 9,326 square feet of space, respectively, under leases expiring on October 31, 2026 and July 31, 2026, respectively.

We do not own any real property and believe that our current facilities, together with our global headquarters and research and development center, are sufficient to meet our ongoing needs and that, if we require additional space, we will be able to obtain additional facilities on commercially reasonable terms.

Competition

The life sciences market is highly competitive. There are other companies, both established and early-stage, that have indicated that they are designing, manufacturing and marketing products for, among other things, tissue analysis, single-cell analysis and spatial analysis. These companies include 10x Genomics, Nanostring Technologies and Fluidigm, each of which has products that compete to varying degrees with some but not all of our product solutions, as well as a number of other emerging and established companies. Some of these companies may have substantially greater financial and other resources than us, including larger research and development staff or more established marketing and sales forces. Other competitors are in the process of developing novel technologies for the life sciences market which may lead to products that rival or replace our products.

However, we believe we are substantially differentiated from our competitors for many reasons, including our position as a leader in a large and growing market, proprietary technologies, rigorous product development processes, scalable infrastructure and positive customer experience. We believe our customers favor our products and company because of these differentiators.

For further discussion of the risks we face relating to competition, see the section titled "*Risk Factors — Risks Related to our Business and Industry — Our market is highly competitive, and if we cannot compete successfully with our competitors, we may be unable to increase or sustain our revenue, or achieve and sustain profitability*".

Government Regulation

We do not currently offer any products or services intended to provide clinical diagnostic or health assessment information in relation to individual patients, for use by those patients or their healthcare providers in connection with treatment.

We offer technology, products, and services directly to our customers or on a contractual basis to a broad range of customers in the life sciences industry. Our customers may themselves be directly regulated by the U.S. Food and Drug Administration ("FDA"), the Centers for Medicare & Medicaid Services under the Clinical Laboratory Improvement Amendments ("CLIA"), or similar foreign or state regulatory authorities.

We market certain of our products under the FDA exemptions applicable to "Research Use Only" ("RUO") in vitro diagnostic ("IVD") products. To qualify for this exemption from the otherwise applicable FDA medical device requirements, IVDs must either themselves be in the laboratory research stage of development; or be instruments, systems, or reagents that are labeled for RUO and intended for use in the conduct of nonclinical laboratory research with goals other than the development of a commercial IVD product, i.e., these products are used to carry out research and are not themselves the object of the research. To make clear that these products are exclusively for research purposes, the FDA requires them to include labeling that is prominently placed to state: "For Research Use Only. Not for use in diagnostic procedures". RUO products include those intended for use in discovering and developing medical knowledge related to human disease and conditions. For example, instruments and reagents intended for use in research attempting to isolate a gene linked with a particular disease may be labeled for RUO when such instruments and reagents are not intended to produce results for clinical use. FDA guidance describes the agency's position on RUOs, including labeling and distribution expectations to remain consistent with RUO status. FDA has advised that it will evaluate the totality of the circumstances to determine if it agrees a product is RUO.

In addition, customers may impose contractual requirements relating to, or we may otherwise determine that it is commercially beneficial for us to voluntarily follow, certain regulatory and industry standards such as FDA good manufacturing practices and International Standards Organization (ISO) quality or other standards.

In the future we may pursue or play a role in the development of "companion diagnostics", or perform clinical testing using companion diagnostics. A companion diagnostic is a medical device, often an in vitro diagnostic device, which provides information that is essential for the safe and effective use of a corresponding drug or biological product. The test helps a health care professional determine whether a particular therapeutic product's benefits to patients will outweigh any potential serious side effects or risks. Companion diagnostics would be subject to a much more significant degree of potential FDA and CMS/CLIA and state laboratory regulation than our current product and service offerings.

We are in the process of pursuing certification under CLIA.

CLIA establishes rigorous quality standards for all laboratories that perform testing on specimens derived from humans for the purpose of providing information for the diagnosis, prevention or treatment of disease, or the impairment of, or assessment of health. Clinical laboratories must obtain a CLIA certificate based on the complexity of testing performed at the laboratory, such as a Certificate of Compliance for high-complexity testing. CLIA also mandates compliance with various operational, personnel, facilities administration, quality and proficiency requirements, intended to ensure that their clinical laboratory testing services are accurate, reliable and timely. Compliance is subject to verification through inspections and audits.

CLIA provides that a state may adopt laboratory regulations that are more stringent than those under federal law, and a number of states have implemented their own more stringent laboratory regulatory requirements. Several states additionally require the licensure of out-of-state laboratories that accept specimens from those states.

If a clinical laboratory is found to be out of compliance with CLIA certification or a state license or permit, the applicable regulatory agency may, among other things, suspend, restrict or revoke the certification, accreditation, license or permit to operate the clinical laboratory, assess civil monetary penalties and impose specific corrective action plans, among other sanctions.

Intellectual Property

Protection of our intellectual property is fundamental to the long-term success of our business. We believe that our continued success depends in large part on our proprietary technologies, the skills of our employees, and the ability of our employees to continue to innovate and incorporate advances into our products and services. We regard our services and our products, including our reagents, our instruments, and our developed software, as proprietary.

We rely primarily on a combination of patent, copyright, trademark, and trade secret laws, as well as contractual provisions with employees and third parties, to establish and protect our intellectual property rights. Our patent strategy is to pursue broad protection for key technologies, supplemented by additional patent filings covering conceptual methods, specific aspects of current and proposed products, and forward-looking applications and technological developments. We also engage in strategic analysis of our owned and licensed patent assets, and pursue additional patent claims from our existing portfolio that may provide us with market advantages. We do not rely heavily on trade secret protection, but do maintain a certain amount of in-house know-how that is not disclosed publicly.

We provide products to customers and commercial and academic collaborators pursuant to agreements with non-disclosure terms and other conditions that impose restrictions on use and disclosure. We further make use of contractual obligations that require our employees, consultants and contractors with access to our proprietary information to execute nondisclosure, non-competition and assignment of intellectual property agreements, to preserve our intellectual property rights. We generally control access to our proprietary and confidential information through the use of internal and external controls that are subject to periodic review.

Our key tissue labeling technology CODEX originated in the laboratory of Professor Garry P. Nolan at Stanford, who is a board member. Two families of patents covering this technology are exclusively licensed from Stanford.

The first patent family generally covers the “CODEX 1” labeling technology in which an antibody conjugated to an oligonucleotide barcode binds to a target in a tissue sample, and extension of a primer hybridized to the barcode generates a molecular reporter that emits a detectable fluorescent signal. The patent family covering the CODEX 1 technology includes patents directed to compositions generated by use of the CODEX 1 technology as well as methods of using the CODEX 1 technology. Patents directed to the methods of using the CODEX 1 technology include U.S. patents (expiring in 2034-2036) and European patents (expiring in 2035) in Germany, France, United Kingdom and Sweden. Patent directed to the compositions generated by use of the CODEX 1 technology include a U.S. patent expiring in 2034. The second patent family generally covers the “CODEX 2” labeling technology in which an antibody conjugated to an oligonucleotide binds to a target in a tissue sample, and a second oligonucleotide conjugated to a dye hybridizes to the first oligonucleotide to generate a fluorescent molecular reporter. The patent family covering the CODEX2 technology includes a U.S. patent directed to methods of using the CODEX 2 technology, which expires in 2037.

Our key tissue imaging technology Phenoptics® originated at Cambridge Research later acquired by Caliper Life Sciences, Inc. which was subsequently acquired by PKI. We purchased key patent assets covering this technology from PKI, Cambridge Research and Caliper Life Sciences, Inc., and also licensed certain supplemental patents from PKI, Cambridge Research and VisEn Medical Inc. Some of the supplemental patents are exclusively licensed and others are non-exclusively licensed.

The Phenoptics® technology is embodied in the Mantra 2 Quantitative Pathology Workstation, the Vectra 3 Automated Quantitative Pathology Imaging System, and the Vectra Polaris Automated Quantitative Pathology Imaging System, and in the *inForm Tissue* software that is supplied as part of these systems and is also available independently, or the Phenoptics® products. Each of these systems is a complex combination of imaging components, sample and reagent handling components, and proprietary software. Components of these systems and software that are protected by specific issued U.S. and foreign utility patents include, as of February 1, 2021:

- software that performs classification of cells and other components of biological tissues and is protected by four owned U.S. patents expected to expire between 2026 and 2028, and owned patents in China, India and Europe expected to expire in 2026;
- systems (including sample handling components) and software that performs dilute eosin staining and imaging of tissue samples and are protected by one owned U.S. patent expected to expire in 2032, and owned patents in Canada, Japan and Europe expected to expire in 2030;
- imaging components and software that perform whole slide imaging of tissue samples and registration of multispectral whole-slide images and are protected by our owned U.S. patent expected to expire in 2034, and also by our owned patents in China and Europe expected to expire in 2034;
- sample- and reagent-handling components, hardware control components, and software that performs pure spectrum determination for spectral unmixing of complex multispectral tissue images and are protected by one owned U.S. patent expected to expire in 2036, and also by owned patents in China and Europe expected to expire in 2034;
- imaging components and software that performs RNA detection in tissue samples and are protected by an owned U.S. patent expected to expire in 2032;
- software that performs real-time spectral unmixing of large multispectral images and is protected by two owned U.S. patents expected to expire between 2030 and 2031;
- imaging components, hardware control components, and software that performs dynamic, spectrally-dependent adjustment of the imaging components for multispectral image acquisition and are protected by one owned U.S. patent expected to expire in 2030 and one owned European patent expected to expire in 2027;
- software that identifies nuclear and non-nuclear regions in a tissue sample stained with two or more counterstains and is protected by one owned U.S. patent expected to expire in 2034;
- imaging components and software that performs spectral unmixing operations on multispectral tissue images to generate component images and are protected by six U.S. patents expected to expire between 2023 and 2026, and four patents in China and Europe expected to expire in 2023, all exclusively in-licensed from Cambridge Research; and
- software that decomposes multispectral images of tissue samples stained with an immunohistochemical stain, eosin, and a counterstain, determines a region of interest, and quantifies the immunohistochemical stain in the region of interest and is protected by one U.S. patent exclusively in-licensed from Cambridge Research expected to expire in 2029.

We also own patent assets (issued U.S. and foreign patents and pending patent applications) covering technologies developed internally, in particular relating to improvements in analytical workflows and small sample processing that are tied to anticipated to provide protection for products in development. Many of these applications are not yet open to public inspection.

As of February 1, 2021, our owned patent assets included approximately 16 issued U.S. patents, eight pending U.S. patent applications (including three U.S. provisional patent applications), 51 granted patents in foreign jurisdictions (including Austria, Canada, China, the European Patent Office, or EPO, France, Germany, Ireland, India, Italy, Japan, Switzerland, and the United Kingdom), three pending patent applications at the EPO and eight pending Patent Cooperation Treaty applications.

The subject matter covered by our owned patents and patent applications includes systems and methods for sample analysis and classification, methods for spectral unmixing of spectrally dense

fluorescence signals, modules and systems for performing dynamic optical correction, methods for training machine classifiers, methods and systems for RNA detection, methods for visualizing and enhancing visualization of samples, methods for visualizing compartments within cells, systems and methods for whole-slide imaging, systems and methods for multiple-image registration, systems and methods for extraction of pure spectra from sample images, methods for specialized allocation of fluorescence bands within a detection window, systems for low-volume flow cell-based sample analysis, methods for enzyme-mediated amplification of detection signals, methods for detecting receptor-coding nucleic acid segments, methods for selective labeling of targets in samples, compositions and methods for selectively targeting certain analytes, and imaging methods using nanobody probes.

Excluding any potential patent term extension, our currently issued owned patents are expected to expire between 2026 and 2036. See "— Licenses" for more information regarding the agreements under which certain of our patents are licensed.

We also seek to protect our brands through registration of trademark rights. As of January 25, 2021, we owned approximately 10 registered trademarks in the United States, 14 registered foreign trademarks, and nine pending U.S. trademark applications. Our registered trademarks and pending trademark applications include trademarks and pending trademark applications for The Spatial Biology Company, Motif, Akoya Biosciences, CODEX, Opal, Vectra, Proxima, Your Spatial Biology Solution, The Spatial Biology Platform, The Spatial Biology Solution, Phenocycler, Phenocode, Phenoscanner, and Phenoimager, and our logos for Akoya Biosciences, CODEX, and inForm.

To supplement protection of our brand, we have also registered several internet domain names.

See "Risk Factors — Risks Related to Intellectual Property" for more information regarding the risks relating to intellectual property.

Licenses

Stanford University

In November 2015, we entered into an exclusive (equity) agreement with Stanford, pursuant to which Stanford granted us an exclusive, sublicensable (subject to certain requirements), worldwide license under certain patent rights owned by Stanford relating to oligonucleotide-based biological sample labeling to make, use and sell products and services that are covered by such patent rights, or the Stanford Licensed Products, in all fields of use. The patents are related to oligonucleotide-based labeling technology, and we refer to this technology as the CODEX 1 technology.

In November 2016, the agreement was amended to include an exclusive, sublicensable (subject to certain requirements), worldwide license granted to us by Stanford under additional patent rights owned by Stanford relating to oligonucleotide-based biological sample labeling to make, use, and sell products and services that are covered by such patent rights, in all fields of use (such products and services are also included in the Stanford Licensed Products). We refer to the technology disclosed in the additional patents as the CODEX 2 technology. We are obligated to use commercially reasonable efforts to develop, manufacture, sell and develop markets for Stanford Licensed Products, including with respect to accomplishing specific goals with specific deadlines set forth in the agreement.

We made one-time upfront payments of $50,000 in connection with the initial execution of the agreement and $30,000 in connection with executing the amendment. We also granted to Stanford 213,333 shares of our non-voting common stock, representing at least 2% of our capitalization. We are also required to pay Stanford annual license maintenance fees in the mid-five figures. We further agreed to make one-time milestone payments (i) at issuance of the first licensed patent included in the original 2015 agreement, (ii) at issuance of the first licensed additional patent included in the 2016 amendment to the agreement, (iii) at the issuance of the first licensed additional patent included in the 2021 amendment to the agreement, (iv) upon the first sale of a Stanford Licensed Product covered by the additional licensed patents included in the 2021 amendment to the agreement and (v) upon the sale of more than $500,000 of Stanford Licensed Products in a calendar year. The aggregate amount of these milestone payments is $120,000. We also agreed to make a payment of $10,000 as an execution fee for the 2021 amendment to the agreement. We are also

obligated to pay Stanford a low single-digit percentage royalty on net sales of Stanford Licensed Products and a portion of any of our sublicensing income.

Subject to Stanford's approval, we control the prosecution and maintenance of the licensed patents and, if we are developing Stanford Licensed Products, have the first right to institute a suit, or defend any declaratory judgment action, related to third-party infringement of the licensed patents.

The agreement will continue until the expiration, revocation, invalidation or abandonment of the last patent or patent application that is licensed to us, unless terminated earlier in accordance with its terms. The last licensed patent is set to expire in 2036. We may terminate the agreement at any time by providing advance written notice of at least 30 days. Stanford may terminate the agreement if we violate or fail to perform any material terms thereof or for our failure to achieve certain milestones or use commercially reasonable efforts to develop and commercialize the Stanford Licensed Products, and fail to cure such violation or failure within 30 days of written notice from Stanford.

PerkinElmer Heath Sciences, Inc., Cambridge Research & Instrumentation, Inc., and VisEn Medical Inc.

In September 2018, we entered into a license and royalty agreement with PKI, Cambridge Research, and VisEn Medical Inc., or, collectively, the Licensor, pursuant to which the Licensor granted us an exclusive, sublicensable (subject to certain conditions), worldwide license within certain fields of use under certain patent rights and know-how owned by the Licensor to make, use, and sell products within such fields of use, as well as a similar, non-exclusive license under certain other patent rights. The licensed patents relate to methods and systems for analyzing biological samples, and in particular, slide-mounted tissue samples.

We agreed to pay the Licensor royalties ranging from a high single-digit to low single-digit percentage on net sales of products covered by either license on a decreasing schedule that ends upon the expiration of the last valid claim of the licensed patents, at which point the agreement shall terminate and our rights and licenses thereunder shall survive on a fully-paid up, royalty-free basis. The last licensed patent is set to expire in 2036. Neither we nor the Licensor has the right to terminate the agreement prior to such expiration.

The Licensor has the first right to control the prosecution, maintenance and defense of the licensed patents. We have the first right to enforce any exclusively licensed patent with respect to third-party infringement occurring solely within our licensed field of use, and Licensor has the first right to enforce the license patents with respect to any other third-party infringement. If any exclusively licensed patent is believed to be infringed by the development, manufacture, use, offer for sale, sale or importation of a product by the third party solely inside field of use worldwide, the Licensor has the first right to institute, prosecute and control any action or proceeding with respect to such infringement of such patent.

University of Washington

In June 2018, we entered into an exclusive patent license agreement with the University of Washington, or the University, pursuant to which the University granted us an exclusive, sublicensable (subject to certain conditions), worldwide license in certain fields of use under certain patent rights owned by the University relating to technology for molecular profiling of cells and tissue specimens, to make, use and sell products that are covered by such patent rights, or the Washington Licensed Products. The licensed patents are related to the detection of biomolecules, particularly proteins and nucleic acids, in biological samples.

We made an upfront payment of $15,000 following execution of the agreement, and we are obligated to pay the University a low single-digit percentage running royalty on net sales of Washington Licensed Products, subject to certain minimum annual royalty payments and potential reductions based on a royalty-stacking allowance for certain third-party rights that are required to be obtained to make, use, sell or import Washington Licensed Products. We are also obligated to make cumulative one-time payments to the University of $100,000 upon the achievement of certain commercial milestones, as well as sharing a portion of any of our non-royalty sublicensing income.

We are obligated to use commercially reasonable efforts to commercialize the inventions covered by the licensed patent rights and to make and sell Washington Licensed Products as soon as practicable and maximize sales thereof, including with respect to accomplishing specific goals with specific deadlines set forth in the agreement.

The University must conduct the prosecution of the licensed patents per our instructions and at our expense, subject to certain exceptions. We have the first right to defend and enforce the licensed patents at our expense.

The agreement shall expire when all licensed patent rights have terminated, unless terminated earlier in accordance with the terms thereof. The last licensed patent is set to expire in 2032. We may terminate the agreement at any time by providing advance written notice of at least 60 days. The University may terminate the agreement if we violate or fail to perform any material term thereof and fail to cure such violation or failure within 60 days of written notice from the University. In addition, the University may terminate the exclusive license agreement upon 10 days' prior written notice upon certain insolvency-related events involving us or should we challenge the validity of the licensed patents.

Legal Proceedings

From time to time, we may become involved in legal proceedings or be subject to claims arising in the ordinary course of our business. We are not presently a party to any legal proceedings that we believe, if determined adversely to us, would have a material adverse effect on our business, financial condition, operating results, or cash flows. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources, and other factors.

MANAGEMENT

Executive Officers and Directors

Set forth below is certain biographical and other information regarding our directors and our executive officers as of December 31, 2020.

Name	Age	Position(s)
Executive Officers		
Brian McKelligon	52	President and Chief Executive Officer and Director
Joseph Driscoll	56	Chief Financial Officer
Niro Ramachandran, Ph.D.	46	Chief Business Officer
Frederic Pla, Ph.D.	62	Chief Operating Officer
Non-Employee Directors		
Garry Nolan, Ph.D.	59	Director
Thomas Raffin, M.D.	73	Director
Thomas P. Schnettler	64	Director
Robert Shepler	64	Director
Matt Winkler, Ph.D.	68	Director

The following are brief biographies describing the backgrounds of our executive officers and directors.

Executive Officers

Brian McKelligon. Mr. McKelligon has served as our Chief Executive Officer and on our board of directors since July 2017. Prior to joining Akoya, Mr. McKelligon led corporate and business development at Cellular Dynamics International, a privately-held life sciences company acquired by FUJIFilm, with a focus on the development and partnering of cell therapy programs, from April 2016 to June 2017. Prior to that, Mr. McKelligon was the Vice President of Sales and Support at 10X Genomics, Inc. from April 2015 to April 2016, and the Vice President of Sales and Support at Thermo Fisher and Life Technologies (through their acquisition of Ion Torrent) from January 2010 to March 2015. Mr. McKelligon received a B.S. in combined sciences from Santa Clara University.

We believe that Mr. McKelligon is qualified to serve on our board of directors because of his experience as our Chief Executive Officer, industry knowledge and previous experience.

Joseph Driscoll. Mr. Driscoll has served as our Chief Financial Officer since March 2019. From April 2017 to March 2019, Mr. Driscoll was the Chief Financial Officer of Quanterix Corporation (Nasdaq:QTRX), a life sciences company that develops ultra-sensitive detection systems for use in research and in-vitro diagnostic. Prior to that, Mr. Driscoll served as Chief Financial Officer of Verscend Technologies, Inc., a healthcare data analytics company, from October 2016 to April 2017. From March 2012 to October 2016, he served as the Chief Financial Officer, Senior Vice President and Treasurer of PC Connection, Inc. (Nasdaq:CNXN), an IT solutions provider, where he also served as the company's Principal Financial and Accounting Officer. From September 2006 to March 2012, Mr. Driscoll served as the Chief Financial Officer of Summer Infant, Inc. (Nasdaq:SUMR), a consumer products company, where he also served as the company's Treasurer and Principal Accounting Officer. Mr. Driscoll is a licensed Certified Public Accountant, and holds a B.S. in Accounting from Boston College.

Niro Ramachandran, Ph.D. Dr. Ramachandran has served as our Chief Business Officer since August 2020. Prior to joining our company, Dr. Ramachandran served as Vice President of the spatial biology business unit at Nanostring Technologies, Inc. (Nasdaq:NSTG), a life sciences company that specializes in development of cancer diagnostics tools, from July 2014 to July 2020. Prior to that, Dr. Ramachandran led product development for the protein business unit at Life Technologies (which was acquired by Thermo Fisher) from August 2008 to July 2014. Dr. Ramachandran received his Hon. BSc. in

Biochemistry from University of Toronto, and Ph.D. from University of Windsor. He completed his post doctorate work at the Harvard Institute of Proteomics, Harvard University.

Frederic Pla,Ph.D. Dr. Pla has served as our Chief Operating Officer since March 2021. Prior to joining our company, Dr. Pla served as Chief Operating Officer at the Parker Institute for Cancer Immunotherapy from April 2020 to March 2021. Prior to that, Dr. Pla was the Chief Operating Officer of Genomic Health, a global oncology diagnostics company until its acquisition by Exact Sciences in November 2020. Before joining Genomic Health in 2014, Dr. Pla was Vice President, Corporate Business Development, for Life Technologies, a $4 billion, 10,000-employee, San Diego-based global life sciences business, until its acquisition by Thermo Fisher in 2014. Dr. Pla joined Life Technologies in 2005 as Vice President and General Manager of the Diagnostics Business, responsible for product development and manufacturing facilities in the U.S., UK, and China. Dr. Pla holds 23 U.S. patents, a Ph.D. in acoustics from the Pennsylvania State University, a Master's degree from the University of Southampton, UK, and an engineering degree from the University of Technology of Compiegne, France.

Non-Employee Directors

Garry Nolan, Ph.D. Dr. Nolan co-founded Akoya Biosciences, Inc. in 2015 and has served on our board of directors since November 2015. Dr. Nolan is the Rachford and Carlota A. Harris Professor in the Department of Microbiology and Immunology at Stanford University School of Medicine. He trained with Leonard Herzenberg (for his Ph.D.) and Nobelist Dr. David Baltimore (for postdoctoral work). He holds a B.S. in Genetics from Cornell University and a Ph.D. from Stanford University in Genetics. He has published over 300 research articles and is the holder of over 40 US patents and has been honored as one of the top 25 inventors at Stanford University. Dr. Nolan was the founder and has served on the boards of directors of several biotechnology companies. Dr. Nolan is the first recipient of the Teal Innovator Award (2012) from the Department of Defense and has been honored with multiple awards including Nature Publishing "Outstanding Research Achievement", Stohlman Scholar from the Leukemia and Lymphoma Society and Burroughs Wellcome Fund New Investigator Award.

We believe that Dr. Nolan is qualified to serve on our board of directors because of his experience as our co-founder, previous experience as a co-founder of other life sciences companies, industry knowledge and extensive academic training.

Thomas Raffin, M.D. Dr. Raffin has served as a member of our board of directors since November 2015. He initially joined the NewLink Board in 2000. Dr. Raffin has spent 25 years on the faculty at Stanford University School of Medicine, where he was the Colleen and Robert Haas Professor of Medicine and Biomedical Ethics and Chief of the Division of Pulmonary and Critical Care Medicine. Over the past two decades, Dr. Raffin has worked extensively in the healthcare and medical device business sectors and was an advisor to Cell Therapeutics Inc. from 1993 to 1997, Broncus Technologies from 1997 to 2004, iMedica from 1998 to 2002, and Inhale Technologies from 1998 to 2001. He co-founded Rigel Pharmaceuticals, a publicly traded company (Nasdaq: RIGL), in 1996. He is currently on the board of Lumos Pharma. In 2001, he co-founded Telegraph Hill Partners, a San Francisco life sciences private equity firm as a General Partner. Dr. Raffin has been a director of the following Telegraph Hill Partners private portfolio companies: AngioScore, Inc., Confirma, Inc., Freedom Innovations, LDR Holding Corporation, PneumRx, Inc. and InvisALERT Solutions. Dr. Raffin received a B.A. from Stanford University and an M.D. from Stanford University School of Medicine and did his medical residency at the Peter Bent Brigham Hospital (now Brigham and Women's Hospital) in Boston, MA.

We believe Dr. Raffin is qualified to serve on our board of directors because of his extensive experience in the biotechnology and healthcare industries, his service on a number of boards which provides an important perspective on operations and corporate governance matters, and his experience in the practice of medicine and academics.

Thomas P. Schnettler. Mr. Schnettler has served as a member of our board of directors since September 2019. Mr. Schnettler is vice chairman of Piper Sandler Companies, a managing director in the merchant banking group and co-CEO of PSC Capital Partners LLC, the registered investment adviser to the Piper Sandler merchant banking funds. Mr. Schnettler has held a number of leadership roles at Piper Sandler, including president and chief operating officer and chief financial officer. Earlier in his career, he

co-founded and led the healthcare investment banking group. Mr. Schnettler has served on the board of, or held board observation responsibility for, Torax Medical, Sapphire Digital, Sport Ngin, Xenex Disinfection Services, Elligo Health Research and Paragon 28. Mr. Schnettler graduated from Saint John's University in Collegeville, Minnesota and holds a Juris Doctor degree from Harvard Law School.

We believe that Mr. Schnettler is qualified to serve on our board of directors because of his experiences in finance and the healthcare sector, including serving as an executive at an investment bank.

Robert Shepler. Mr. Shepler has served as a member of our board of directors since November 2015. Mr. Shepler was a founder and served as a Managing Director of Telegraph Hill Partners, a growth equity/ late-stage venture capital investment firm focused exclusively on healthcare related companies, since its inception in 2001 until August 2020 when he became Partner Emeritus. Prior to Telegraph Hill Partners, Mr. Shepler was a principal in the investment firm of Mackowski & Shepler and an officer in the investment banking division of Merrill Lynch & Co. In addition to Akoya, Mr. Shepler currently serves on the board of directors of Agena Biosciences, Inc. and Dynex Technologies, Inc. Previously, Mr. Shepler has been a director on the boards of LDR Holding Corporation, Applied Precision, Inc., SAGE Labs, Inc., Vidacare Corporation, Endoscopic Technologies, Inc., AcroMetrix, Inc., Aurora Discovery, Inc., Kinetikos Medical, Inc., RareCyte, Inc., ReloAction, Inc., Reading Glass Company, Inc., One Body, Inc., Microinterventional Systems, Inc., R.D. Percy & Company, Inc. and was chairman of Genomic Solutions, Inc. (Nasdaq: GNSL). Mr. Shepler received a B.A. from Duke University and an M.B.A. from New York University.

We believe that Mr. Shepler is qualified to serve on our board of directors because of his substantial experience as a venture capitalist and as a director of publicly traded and privately held companies.

Matt Winkler, Ph.D. Dr. Winkler has served on our board or directors since July 2017. Dr. Winkler is the current Chairman and founder of Asuragen. He also founded Mirna Therapeutics and Ambion, Inc. Ambion was acquired in 2006 by Applied Biosystems, now Thermo Fisher Scientific. Dr. Winkler currently serves on the board of directors of "The Breakthrough Institute", "Revive and Restore" and the "Genetic Literacy Project", all from 2017 to present. Dr. Winkler was an Assistant and Associate Professor (1983-1991) in the Department of Zoology at the University of Texas at Austin, where he is also currently a member of several advisory boards. Dr. Winkler received his B.S. in Genetics and a Ph.D. in Zoology from the University of California at Berkeley.

We believe that Dr. Winkler is qualified to serve on our board of directors due to his extensive operational experience with global life sciences companies, and particularly his expertise in business development and corporate strategy.

Election of Officers and Family Relationships

Our executive officers are appointed by, and serve at the discretion of, our board of directors. There are no family relationships among any of our directors or executive officers.

Board Composition

Our Bylaws will provide that our board of directors shall initially consist of six members, and thereafter shall be fixed from time to time by resolution of our board of directors. Currently our board of directors consists of six members: Brian McKelligon, Garry Nolan, Thomas Raffin, Thomas P. Schnettler, Robert Shepler, Matt Winkler.

In accordance with our Certificate of Incorporation, our board of directors will be divided into three classes with staggered three-year terms. At each annual meeting of stockholders after the initial classification, the successors to the directors whose terms will then expire will be elected to serve from the time of election and qualification until the third annual meeting following their election. Our directors will be divided among the three classes as follows:

- the Class I directors will be and , and their terms will expire at the annual meeting of stockholders to be held in 2022;
- the Class II directors will be and , and their terms will expire at the annual meeting of stockholders to be held in 2023; and

- the Class III directors will be and , and their terms will expire at the annual meeting of stockholders to be held in 2024.

Any increase or decrease in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. This classification of our board of directors may have the effect of delaying or preventing changes in control of our company.

Director Independence

Our board of directors has determined that, upon closing of this offering, Garry Nolan, Thomas P. Schnettler and Matt Winkler will be independent directors. In making this determination, our board of directors applied the standards set forth in the rules of Nasdaq and in Rule 10A-3 under the Exchange Act. Our board of directors considered all relevant facts and circumstances known to it in evaluating the independence of these directors, including their current and historical employment, any compensation we have given to them, any transactions we have with them, their beneficial ownership of our capital stock, their ability to exert control over us, all other material relationships they have had with us and the same facts with respect to their immediate families. We intend to rely on a phase-in period under these rules applicable to newly public companies, which will permit fewer than a majority of our board of directors to be independent on the listing date of our common stock, provided we satisfy such requirement within one year of the date of listing. Accordingly, we intend to have a majority of our board of directors consist of independent directors within one year of the date our common stock is listed on The Nasdaq Global Market.

Although there is no specific policy regarding diversity in identifying director nominees, both the Nominating and Corporate Governance Committee and the board of directors seek the talents and backgrounds that would be most helpful to us in selecting director nominees. In particular, the Nominating and Corporate Governance Committee, when recommending director candidates to our board of directors for nomination, may consider whether a director candidate, if elected, assists in achieving a mix of board of directors members that represents a diversity of background and experience.

Board Leadership Structure

Our board of directors is led by our Chairman, Robert Shepler. Our board of directors recognizes that one of its key responsibilities is to evaluate and determine its optimal leadership structure so as to provide effective oversight of management. Our Bylaws and corporate governance guidelines will provide our board of directors with flexibility to combine or separate the positions of Chair of the Board and Chief Executive Officer. Our board of directors currently believes that our existing leadership structure is effective, provides the appropriate balance of authority between independent and non-independent directors, and achieves the optimal governance model for us and for our stockholders.

Board Oversight of Risk

Although management is responsible for the day to day management of the risks our company faces, our board of directors and its committees take an active role in overseeing management of our risks and have the ultimate responsibility for the oversight of risk management. The board of directors regularly reviews information regarding our operational, financial, legal and strategic risks. Specifically, senior management attends quarterly meetings of the board of directors, provides presentations on operations including significant risks, and is available to address any questions or concerns raised by our board of directors.

In addition, we expect that our three committees will assist the board of directors in fulfilling its oversight responsibilities regarding risk. The Audit Committee will coordinate the board of director's oversight of our internal control over financial reporting, disclosure controls and procedures, related party transactions and code of conduct and corporate governance guidelines and management will regularly report to the Audit Committee on these areas. The Compensation Committee will assist the board of directors in fulfilling its oversight responsibilities with respect to the management of risks arising from our compensation policies and programs as well as succession planning as it relates to our Chief Executive Officer. The Nominating and Corporate Governance Committee will assist the board of directors in fulfilling its oversight responsibilities with respect to the management of risks associated with board organization, membership

and structure, succession planning for our directors and corporate governance. When any of the committees receives a report related to material risk oversight, the chair of the relevant committee will report on the discussion to the full board of directors.

Code of Business Conduct and Ethics

We have adopted a written code of business conduct, that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Upon the closing of this offering, a copy of the code will be posted on the Investor Relations section of our website. If we make any substantive amendments to, or grant any waivers from, the code of business conduct and ethics for any officer or director, we will disclose the nature of such amendment or waiver on our website or in a current report on Form 8-K within four business days of such amendment or waiver.

Board Committees

Our board of directors has established an audit committee, or the Audit Committee, a compensation committee, or the Compensation Committee, and a nominating and corporate governance committee, or the Nominating and Corporate Governance Committee, each of which will operate pursuant to a charter to be adopted by our board of directors and will be effective upon the closing of this offering. Our board of directors may also establish other committees from time to time to assist the board of directors. Effective upon the closing of this offering, the composition and functioning of all of our committees will comply with all applicable requirements of the Sarbanes-Oxley Act, Nasdaq and SEC rules and regulations. Upon our listing on Nasdaq, each committee's charter will be available on our website.

Audit Committee

The members of our Audit Committee are Messrs. Schnettler, Shepler and Winkler, with Mr. Schnettler serving as chair. Our board of directors has determined that each member of the Audit Committee has sufficient knowledge in financial and auditing matters to serve on the Audit Committee. Our board of directors has designated Mr. Schnettler as an "audit committee financial expert," as defined under the applicable rules of the SEC. We intend to rely on the phase-in rules of Rule 10A-3 under the Exchange Act and the Nasdaq rules with respect to the requirement that the audit committee be composed entirely of members of our board of directors who satisfy the standards of independence established for independent directors under the Nasdaq rules and the additional independence standards applicable to audit committee members established pursuant to Rule 10A-3 under the Exchange Act, as determined by our board of directors. Our board of directors has determined that Mr. Winkler meets the independence requirements for audit committees required under Section 10A of the Exchange Act and the applicable Nasdaq rules. The audit committee's responsibilities include:

- appointing, approving the compensation of and assessing the independence of our independent registered public accounting firm;
- pre-approving auditing and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- reviewing the overall audit plan with our independent registered public accounting firm and members of management responsible for preparing our financial statements;
- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures as well as critical accounting policies and practices used by us;
- coordinating the oversight and reviewing the adequacy of our internal control over financial reporting;
- establishing policies and procedures for the receipt and retention of accounting-related complaints and concerns;

- recommending based upon the audit committee's review and discussions with management and our independent registered public accounting firm whether our audited financial statements shall be included in our Annual Report on Form 10-K;
- monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to our financial statements and accounting matters;
- preparing the audit committee report required by SEC rules to be included in our annual proxy statement;
- reviewing all related person transactions for potential conflict of interest situations and approving all such transactions; and
- reviewing quarterly earnings releases.

Compensation Committee

The members of our Compensation Committee are Messrs. Raffin, Nolan, Shepler and Winkler, with Mr. Raffin serving as chair. We intend to rely on the phase-in rules of Nasdaq with respect to the requirement that the compensation committee be composed entirely of members of our board of directors who satisfy the standards of independence established for independent directors under the Nasdaq rules, as determined by our board of directors. Our board of directors has determined that each of Messrs. Nolan and Winkler are "independent" as that term is defined in SEC and Nasdaq rules, meets the heightened independence requirements for compensation committee purposes under Section 10C of the Exchange Act and related SEC and Nasdaq rules, and are considered a "non-employee director" under Rule 16b-3 under the Exchange Act. The compensation committee's responsibilities include:

- reviewing and approving our philosophy, policies and plans with respect to the compensation of our chief executive officer;
- making recommendations to our board of directors with respect to the compensation of our chief executive officer and our other executive officers;
- reviewing and assessing the independence of compensation advisors;
- overseeing and administering our equity incentive plans;
- reviewing and making recommendations to our board of directors with respect to director compensation; and
- preparing the Compensation Committee reports required by the SEC, including our "Compensation Discussion and Analysis" disclosure.

Nominating and Corporate Governance Committee

Effective upon the closing of this offering Messrs. Schnettler, Shepler and Winkler will serve on the Nominating and Corporate Governance Committee, which will be chaired by Mr. Schnettler. We intend to rely on the phase-in rules of Nasdaq with respect to the requirement that the nominating and corporate governance committee be composed entirely of members of our board of directors who satisfy the standards of independence established for independent directors under the Nasdaq rules, as determined by our board of directors. Our board of directors has determined that Messrs. Schnettler and Winkler are "independent" as defined in Nasdaq rules. The Nominating and Corporate Governance Committee's responsibilities include:

- developing and recommending to the board of directors criteria for board and committee membership;
- establishing procedures for identifying and evaluating board of director candidates, including nominees recommended by stockholders;
- reviewing the composition of the board of directors to ensure that it is composed of members containing the appropriate skills and expertise to advise us;
- identifying and screening individuals qualified to become members of the board of directors;

- recommending to the board of directors the persons to be nominated for election as directors and to each of the board's committees;
- developing and recommending to the board of directors a code of business conduct and ethics and a set of corporate governance guidelines; and
- overseeing the evaluation of our board of directors and management.

Compensation Committee Interlocks and Insider Participation

None of the members of our Compensation Committee has during the prior fiscal year been one of our officers or employees or had a relationship requiring disclosure under "Certain Relationships and Related Party Transactions." None of our executive officers currently serves, or in the past fiscal year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee.

EXECUTIVE COMPENSATION

This section discusses the material components of the executive compensation program for our executive officers who are named in the "Summary Compensation Table" below. In 2020, our "named executive officers" and their positions were as follows:

- Brian McKelligon, our Chief Executive Officer;
- Joseph Driscoll, our Chief Financial Officer; and
- Niro Ramachandran, our Chief Business Officer.

This discussion may contain forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt following the closing of this offering may differ materially from the currently planned programs summarized in this discussion.

Summary Compensation Table

The following table sets forth information concerning the compensation of our named executive officers for the years ended December 31, 2020 and 2019.

Name and principal position	Year	Salary ($)	Option awards ($)[1]	Non-Equity Incentive Plan Compensation ($)	All other compensation ($)	Total ($)
Brian McKelligon *Chief Executive Officer*	2020	350,000	108,498	57,750	—	516,248
	2019	333,333	49,001	102,000	—	484,334
Joseph Driscoll *Chief Financial Officer*	2020	308,605	66,162	56,012	—	430,779
	2019	237,500	72,541	84,915	—	394,956
Niro Ramachandran *Chief Business Officer*	2020	116,250[2]	67,041	19,181	—	202,472

(1) The amounts disclosed represent the aggregate grant date fair value of stock options granted under our 2015 Equity Incentive Plan during the indicated fiscal year computed in accordance with ASC Topic 718. The assumptions used in calculating the grant date fair value of the stock options are set forth in the notes to our audited consolidated financial statements included elsewhere in this prospectus. These amounts do not reflect the actual economic value that may be realized by the named executive officers.

(2) Amount reported for Mr. Ramachandran represents the prorated portion of his annual base salary of $300,000 earned after commencing his employment with us in August 2020.

Employment arrangements

This section contains a description of the material terms of the employment arrangements with our NEOs. Our NEOs signed an offer letter with us, which provides for at-will employment and sets forth other terms of employment, including the initial base salary, target incentive opportunity, the terms of the initial equity grant and, in the case of Mr. McKelligon and Mr. Driscoll, severance protections upon a qualifying termination. In addition, each of our NEOs executed a form of our standard at-will employment, confidential information, invention assignment and arbitration agreement, which includes a non-solicit of employees covenant during employment and for one year following termination.

Brian McKelligon

On June 28, 2017, we entered into an employment offer letter with Brian McKelligon, who currently serves as our President and Chief Executive Officer. Mr. McKelligon's employment offer letter provides for at-will employment and sets forth his annual base salary, target bonus and initial stock option grants, as well

as his eligibility to participate in our benefit plans generally. Mr. McKelligon's current annual base salary is $350,000 and his annual bonus target is 30% of this annual salary. Mr. McKelligon also is subject to our standard Confidential Information and Invention Assignment Agreement regarding ownership of intellectual property.

Under Mr. McKelligon's employment offer letter, in the event that Mr. McKelligon's employment with us is terminated at any time pursuant to a "constructive termination" or without "cause", then, subject to and contingent upon Mr. McKelligon's execution and delivery of a separation and release agreement, Mr. McKelligon will be entitled to receive payments equal to six months of his then current base salary and continued benefits, payable in accordance with our normal payroll practices.

Pursuant to Mr. McKelligon's employment offer letter, "constructive termination" means (i) without Mr. McKelligon's written consent, a material reduction in Mr. McKelligon's annual salary, objective-based bonus or benefits, other than those part of a management-wide reduction, (ii) any material failure by us to comply with the provisions of Mr. McKelligon's employment offer letter, (iii) any action that results in a material diminution in Mr. McKelligon's title, duties or responsibilities unless such changes are mutually agreed upon, (iv) a failure of a successor-in-interest under a change of control to assume all of the obligations of the company under Mr. McKelligon's employment offer letter, and (v) without Mr. McKelligon's written consent, a requirement of relocation to a location more than 30 miles away from Mr. McKelligon's current home address. In order to establish a "Constructive Termination" for terminating employment, Mr. McKelligon must provide written notice to us of the existence of the condition giving rise to the Constructive Termination and we must be provided with thirty (30) days thereafter to cure the condition to the extent that any of such reasons are susceptible to cure, such satisfaction to be reasonably determined by Mr. McKelligon.

Pursuant to Mr. McKelligon's offer letter, "cause" means (i) any act or omission by Mr. McKelligon which has an adverse effect on our business or on Mr. McKelligon's ability to perform services for us, including, without limitation, the commission of, or a guilty or no contest plea to, any crime (other than ordinary traffic violations), (ii) refusal or failure to perform reasonably assigned duties, serious misconduct, excessive absenteeism, a breach by Mr. McKelligon of his fiduciary duty to us, or an act of fraud or dishonesty in the performance of his duties, (iii) refusal or failure to comply with our policies, or (iv) any breach of Mr. McKelligon's obligations or duties under any written agreement between us and Mr. McKelligon, including, without limitation, McKelligon's employment offer letter.

In addition to the foregoing, in the event of a change in control, Mr. McKelligon will be entitled to receive full acceleration of his unvested stock options and other equity awards.

Joseph Driscoll

On January 28, 2019, we entered into an employment offer letter with Joseph Driscoll, who currently serves as our Chief Financial Officer. Mr. Driscoll's employment offer letter provides for at-will employment and sets forth his annual base salary, target bonus and initial stock option grants, as well as his eligibility to participate in our benefit plans generally. Mr. Driscoll's current annual base salary is $310,326 and his annual target bonus is 33% of his annual salary. Mr. Driscoll also is subject to our standard Confidential Information and Inventions Assignment Agreement regarding ownership of intellectual property.

Under Mr. Driscoll's employment offer letter, in the event that Mr. Driscoll is terminated without cause, Mr. Driscoll will be entitled to receive payments equal to six months of his base salary. In addition to the foregoing, in the event of a change in control and the termination of his employment, Mr. Driscoll will be entitled to receive full acceleration of his unvested stock options.

Niroshan Ramachandran, PhD.

On July 14, 2020, we entered into an employment offer letter with Niroshan Ramachandran, PhD., who currently serves as our Chief Business Officer. Dr. Ramachandran's employment offer letter provides for at-will employment and sets forth his annual base salary, target bonus and initial stock option grants, as well as his eligibility to participate in our benefit plans generally. Dr. Ramachandran's current annual base

salary is $300,000 and his annual target bonus is 30% of this annual salary. Dr. Ramachandran also is subject to our standard Confidential Information and Invention Assignment Agreement regarding ownership of intellectual property.

Other elements of compensation

Fiscal year 2020 annual bonus

We provide our executives an opportunity to earn annual cash bonuses to motivate and reward achievements of certain corporate and individual performance goals for each fiscal year. The target bonus, expressed as a percentage of eligible base salary, for Mr. McKelligon, Mr. Driscoll and Dr. Ramachandran was 30%, 33% and 30%, respectively, for fiscal year 2020.

Based on our achievement of net income and revenue targets established by our board of directors for fiscal year 2020, our compensation committee determined that each of Mr. McKelligon's, Mr. Driscoll's and Dr. Ramachandran's bonus amount relating to corporate performance would be paid out at 55%.

Health benefits

We provide customary employee benefits to eligible employees, including to our NEOs, including medical, dental and vision benefits, short-term and long-term disability insurance, basic and supplemental life insurance and basic and supplemental accidental death and dismemberment insurance.

Retirement benefits

We maintain a defined contribution plan (the "401(k) Plan") for all full-time United States employees, including our NEOs. The 401(k) Plan is intended to qualify as a tax-qualified plan under Section 401(a) of the Code. Each participant may contribute between 1% to 100% of such participant's eligible compensation to the 401(k) Plan subject to annual limitations. For fiscal year 2020, we did not make matching contributions to the 401(k) Plan on behalf of our employees.

Nonqualified deferred compensation

We do not maintain nonqualified defined contribution plans or other nonqualified deferred compensation plans.

Perquisites

We generally do not provide perquisites or personal benefits to our NEOs.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information regarding outstanding option awards held by our named executive officers as of December 31, 2020.

	Option Awards[1]				
Name	Grant Date	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Options Exercise Price ($)[2]	Option Expiration Date
Brian McKelligon	11/09/2017[3]	702,801	119,991	0.13	11/09/2027
	11/09/2017[4]	274,264	—	0.13	11/09/2027
	05/02/2019[5]	325,451	253,130	0.19	05/02/2029
	05/02/2019[4]	192,860	—	0.19	05/02/2029
Joseph Driscoll	05/02/2019[5]	367,952	473,082	0.19	05/02/2029
	05/02/2019[4]	311,067	—	0.19	05/02/2029
Niro Ramachandran	11/06/2020[6]	—	400,000	0.39	11/06/2030

(1) All of the option and stock awards were granted pursuant to our 2016 Stock Option Plan, the terms of which plan is described below under "— Equity Incentive Plans."

(2) All of the option awards were granted with a per share exercise price equal to the fair market value of one share of our common stock on the date of grant, as determined in good faith by our board of directors or compensation committee.

(3) The option vests as to one-fourth of the shares on July 14, 2018 and the remaining shares in 36 equal monthly installments measured from July 14, 2018, subject to the recipient's continuous service with us as of each such vesting date.

(4) Such performance-based option shares were issued in 2017 and 2019, respectively. As of the original issuance date, the performance conditions were not established, and therefore there was no grant date as prescribed by ASC 718. In 2020, the options vested as performance conditions were established and determined to have been achieved.

(5) The option vests as to one-fourth of the shares on September 26, 2019 and the remaining shares in 36 equal monthly installments measured from September 26, 2019, subject to the recipient's continuous service with us as of each such vesting date.

(6) The option vests as to one-fourth of the shares on July 13, 2021 and the remaining shares in 36 equal monthly installments measured from July 13, 2021, subject to the recipient's continuous service with us as of each such vesting date.

Equity Incentive Plans

2021 Equity Incentive Plan

In 2021 our board of directors adopted, and our stockholders approved, the 2021 Plan, which will become effective immediately prior to the closing of this offering. We intend to use the 2021 Plan following the closing of this offering to provide incentives that will assist us to attract, retain, and motivate employees, including officers, consultants, and directors. We may provide these incentives through the grant of stock options, stock appreciation rights, restricted stock, RSUs, performance shares, and units and other cash-based or share-based awards. In addition, the 2021 Plan contains a mechanism through which we may adopt a deferred compensation arrangement in the future.

A total of shares of our common stock are initially authorized and reserved for future issuance under the 2021 Plan. This reserve will automatically increase on January 1, 2022 and each subsequent anniversary through 2030, by an amount equal to the smaller of:

- % of the number of shares of common stock issued and outstanding on the immediately preceding December 31; and
- an amount determined by our board of directors.

Appropriate adjustments will be made in the number of authorized shares and other numerical limits in the 2021 Plan and in outstanding awards to prevent dilution or enlargement of participants' rights in the event of a stock split or other change in our capital structure. Shares subject to awards which expire or are cancelled or forfeited will again become available for issuance under the 2021 Plan.

The shares available under the 2021 Plan will not be reduced by awards settled in cash, but will be reduced by shares withheld to satisfy tax withholding obligations with respect to stock options and stock appreciation rights (but not other types of awards). The gross number of shares issued upon the exercise of stock appreciation rights or options exercised by means of a net exercise or by tender of previously owned shares will be deducted from the shares available under the 2021 Plan.

The 2021 Plan generally will be administered by the compensation committee of our board of directors. Subject to the provisions of the 2021 Plan, the compensation committee will determine in its discretion the persons to whom and the times at which awards are granted, the sizes of such awards and all of their terms and conditions. The compensation committee will have the authority to construe and interpret the terms of the 2021 Plan and awards granted under it. The 2021 Plan provides, subject to certain limitations, for indemnification by us of any director, officer, or employee against all reasonable expenses, including attorneys' fees, incurred in connection with any legal action arising from such person's action or failure to act in administering the 2021 Plan.

During any year, no non-employee director may be granted one or more awards pursuant to the Plan which in the aggregate are for more than a number of shares of our common stock determined by dividing $250,000 by the fair market value of a share of our stock determined on the last trading day immediately preceding the date on which the award is granted.

The 2021 Plan will authorize the compensation committee, without further stockholder approval, to provide for the cancellation of stock options or stock appreciation rights with exercise prices in excess of the fair market value of the underlying shares of common stock on the date of grant in exchange for new options or other equity awards with exercise prices equal to the fair market value of the underlying common stock on the date of grant or a cash payment.

Awards may be granted under the 2021 Plan to our employees, including officers, directors, or consultants or those of any present or future parent or subsidiary corporation or other affiliated entity. All awards will be evidenced by a written agreement between us and the holder of the award and may include any of the following:

- *Stock options.* We may grant non-statutory stock options or incentive stock options (as described in Section 422 of the Code), each of which gives its holder the right, during a specified term (not exceeding ten years) and subject to any specified vesting or other conditions, to purchase a number of shares of our common stock at an exercise price per share determined by the administrator, which may not be less than the fair market value of a share of our common stock on the date of grant.
- *Stock appreciation rights.* A stock appreciation right, or SAR, gives its holder the right, during a specified term (not exceeding ten years) and subject to any specified vesting or other conditions, to receive the appreciation in the fair market value of our common stock between the date of grant of the award and the date of its exercise. We may pay the appreciation in shares of our common stock or in cash.
- *Restricted stock.* The administrator may grant restricted stock awards either as a bonus or as a purchase right at a price determined by the administrator. Shares of restricted stock remain subject to forfeiture until vested, based on such terms and conditions as the administrator specifies. Holders of restricted stock will have the right to vote the shares and to receive any dividends paid, except that the dividends may be subject to the same vesting conditions as the related shares.
- *Restricted stock units.* Restricted stock units, or RSUs, represent rights to receive shares of our common stock (or their value in cash) at a future date without payment of a purchase price, subject

to vesting or other conditions specified by the administrator. Holders of RSUs have no voting rights or rights to receive cash dividends unless and until shares of common stock are issued in settlement of such awards. However, the administrator may grant RSUs that entitle their holders to dividend equivalent rights.

- *Performance awards.* Performance awards, consisting of either performance shares or performance units, are awards that will result in a payment to their holder only if specified performance goals are achieved during a specified performance period. The administrator establishes the applicable performance goals based on one or more measures of business performance, such as revenue, gross margin, net income or total stockholder return. To the extent earned, performance awards may be settled in cash, in shares of our common stock or a combination of both in the discretion of the administrator. Holders of performance shares or performance units have no voting rights or rights to receive cash dividends unless and until shares of common stock are issued in settlement of such awards. However, the administrator may grant performance shares that entitle their holders to dividend equivalent rights.
- *Cash-based awards and other share-based awards.* The administrator may grant cash-based awards that specify a monetary payment or range of payments or other share-based awards that specify a number or range of shares or units that, in either case, are subject to vesting or other conditions specified by the administrator. Settlement of these awards may be in cash or shares of our common stock, as determined by the administrator. Their holders will have no voting rights or right to receive cash dividends unless and until shares of our common stock are issued pursuant to the awards. The administrator may grant dividend equivalent rights with respect to other share-based awards.

In the event of a change in control as described in the 2021 Plan, the acquiring or successor entity may assume or continue all or any awards outstanding under the 2021 Plan or substitute substantially equivalent awards. The compensation committee may provide for the acceleration of vesting of any or all outstanding awards upon such terms and to such extent as it determines, except that the vesting of all awards held by members of the board of directors who are not employees will automatically be accelerated in full. Any awards that are not assumed, continued, or substituted for in connection with a change in control or are not exercised or settled prior to the change in control will terminate effective as of the time of the change in control. Notwithstanding the foregoing, except as otherwise provided in an award agreement governing any award, as determined by the compensation committee, any award that is not assumed, continued, or substituted for in connection with a change in control shall, subject to the provisions of applicable law, become fully vested and exercisable or settleable immediately prior to, but conditioned upon, the consummation of the change in control. The 2021 Plan will also authorize the compensation committee, in its discretion and without the consent of any participant, to cancel each or any outstanding award denominated in shares upon a change in control in exchange for a payment to the participant with respect to each share subject to the cancelled award of an amount equal to the excess of the consideration to be paid per share of common stock in the change in control transaction over the exercise price per share, if any, under the award.

The 2021 Plan will continue in effect until it is terminated by our board of directors, provided, however, that all awards will be granted, if at all, within ten years of its effective date. The board of directors may amend, suspend or terminate the 2021 Plan at any time, provided that without stockholder approval, the plan cannot be amended to increase the number of shares authorized, change the class of persons eligible to receive incentive stock options, or effect any other change that would require stockholder approval under any applicable law or listing rule.

2021 Employee Stock Purchase Plan

In , 2021 our board of directors adopted, and our stockholders approved, the ESPP, which will become effective immediately prior to the closing of this offering.

A total of shares of our common stock are initially authorized and reserved for future issuance under the ESPP. In addition, the ESPP provides for annual increases in the number of shares available for issuance under the ESPP on January 1, 2022 and each subsequent anniversary through 2030, equal to the smallest of:

- shares of our common stock; or
- such other amount as may be determined by our board of directors.

Appropriate adjustments will be made in the number of authorized shares and in outstanding purchase rights to prevent dilution or enlargement of participants' rights in the event of a stock split or other change in our capital structure. Shares subject to purchase rights which expire or are cancelled will again become available for issuance under the ESPP.

The compensation committee of our board of directors will administer the ESPP and have full authority to interpret the terms of the ESPP. The ESPP provides, subject to certain limitations, for indemnification by us of any director, officer or employee against all judgments, amounts paid in settlement and reasonable expenses, including attorneys' fees, incurred in connection with any legal action arising from such person's action or failure to act in administering the ESPP.

All of our employees, including our named executive officers, and employees of any of our subsidiaries designated by the compensation committee are eligible to participate if they are customarily employed by us or any participating subsidiary for more than 20 hours per week and more than five months in any calendar year, subject to any local law requirements applicable to participants in jurisdictions outside the United States. However, an employee may not be granted rights to purchase stock under the ESPP if such employee:

- immediately after the grant would own stock or options to purchase stock possessing 5% or more of the total combined voting power or value of all classes of our capital stock; or
- holds rights to purchase stock under all of our employee stock purchase plans that would accrue at a rate that exceeds $25,000 worth of our stock for each calendar year in which the right to be granted would be outstanding at any time.

The ESPP is intended to qualify under Section 423 of the Code. Any such sub-plan may or may not be intended to qualify under Section 423 of the Code. The administrator may, in its discretion, establish the terms of future offering periods, including establishing offering periods of up to twenty-seven months and providing for multiple purchase dates. The administrator may vary certain terms and conditions of separate offerings for employees of our non-U.S. subsidiaries where required by local law or desirable to obtain intended tax or accounting treatment.

In general, the ESPP permits participants to purchase common stock through payroll deductions of up to 15% of their eligible cash compensation, which includes a participant's regular base wages or salary and payments of overtime, shift premiums and paid time off before deduction of taxes and certain compensation deferrals. Amounts deducted and accumulated from participant compensation, or otherwise funded through other means in any participating non-U.S. jurisdiction in which payroll deductions are not permitted, are used to purchase shares of our common stock at the end of each offering period.

Unless otherwise provided by the administrator, the purchase price of the shares will be 85% of the lesser of the fair market value of our common stock on the purchase date and the first day of the offering period. In any event, the purchase price in any offering period may not be less than 85% of the fair market value of our common stock on the first day of the offering period or on the purchase date, whichever is less. Participants may end their participation at any time during an offering period and will receive a refund of their account balances not yet used to purchase shares. Participation ends automatically upon termination of employment.

Each participant in an offering will have an option to purchase for each month contained in the offering period a number of shares determined by dividing $2,083.33 by the fair market value of one (1) share of our common stock on the first day of the offering period or 300 shares, if less, and except as limited in order to comply with Section 423 of the Code. Prior to the beginning of any offering period, the administrator may alter the maximum number of shares that may be purchased by any participant during the offering period or specify a maximum aggregate number of shares that may be purchased by all participants in the offering period. If insufficient shares remain available under the plan to permit all participants to purchase the number of shares to which they would otherwise be entitled, the administrator will make a pro rata allocation of the available shares. Any amounts withheld from a participant's compensation in excess

of the amounts used to purchase shares will be refunded, without interest unless otherwise required by a participant's local law.

A participant may not transfer rights granted under the ESPP other than by will, the laws of descent and distribution or as otherwise provided under the ESPP.

In the event of a change in control, an acquiring or successor corporation may assume our rights and obligations under outstanding purchase rights or substitute substantially equivalent purchase rights. If the acquiring or successor corporation does not assume or substitute for outstanding purchase rights, then the purchase date of the offering periods then in progress will be accelerated to a date prior to the change in control.

The ESPP will continue in effect until terminated by the administrator. The compensation committee has the authority to amend, suspend, or terminate the ESPP at any time.

2015 Equity Incentive Plan

The 2015 Plan was originally adopted by our board of directors and approved by our stockholders in November 16, 2015. The maximum aggregate number of shares of common stock that may be issued under the 2015 Plan is 11,527,008. Upon the closing of this offering, our board of directors will terminate the 2015 Plan and we will not grant any further awards under such plan, but the 2015 Plan will continue to govern outstanding awards granted thereunder. Our compensation committee administers the 2015 Plan and has the authority, among other things, to construe and interpret the terms of the 2015 Plan and awards granted thereunder.

The 2015 Plan permits the grant of options. As of December 31, 2020, we had options to purchase shares of common stock outstanding under the 2015 Plan. Appropriate and proportionate adjustments will be made to the number of shares subject to outstanding awards to prevent dilution or enlargement of participants' rights in the event of a recapitalization, reclassification, stock dividend, stock split, reverse stock split, split-up, split-off, spin-off, combination of shares, exchange of shares or similar change in our capital structure, or in the event of payment of a dividend or distribution to our stockholders in a form other than shares (excepting normal cash dividends). All awards will be evidenced by a written agreement between us and the holder of the award and may include any of the following:

- *Stock options.* We may grant non-statutory stock options or incentive stock options (as described in Section 422 of the Code), each of which gives its holder the right, during a specified term (not exceeding ten years) and subject to any specified vesting or other conditions, to purchase a number of shares of our common stock at an exercise price per share determined by the administrator, which may not be less than the fair market value of a share of our common stock on the date of grant.
- *Restricted stock units.* Restricted stock units, or RSUs, represent rights to receive shares of our common stock (or their value in cash) at a future date without payment of a purchase price, subject to vesting or other conditions specified by the administrator. Holders of RSUs have no voting rights or rights to receive cash dividends unless and until shares of common stock are issued in settlement of such awards. However, the administrator may grant RSUs that entitle their holders to dividend equivalent rights.

In its discretion, our compensation committee may provide for acceleration of the exercisability, vesting or settlement of awards in connection with a "change in control," as defined under the 2015 Plan, of each or any outstanding award or portion thereof and common stock acquired pursuant thereto upon such conditions, including termination of the plan participant's service prior to, upon or following such change in control, and to such extent as our compensation committee determines. In the event of a change in control, the surviving, continuing, successor or purchasing corporation or other business entity or parent thereof, as the case may be, may, without the consent of any plan participant, either assume or continue the rights and obligations under each or any award or portion thereof outstanding immediately prior to the change in control or substitute for each or any such outstanding award or portion thereof a substantially equivalent award with respect to the stock of the surviving, continuing, successor or purchasing corporation or other business entity or parent thereof, as applicable. Any award or portion thereof which is neither assumed nor continued by the surviving, continuing, successor or purchasing corporation or other business

entity or parent thereof in connection with the change in control nor exercised or settled as of the time of consummation of the change in control shall terminate and cease to be outstanding effective as of the time of consummation of the change in control.

401(k) Plan

We maintain a retirement savings plan, or 401(k) Plan, for the benefit of our eligible employees, including our named executive officers. Our 401(k) Plan is intended to qualify under Sections 401 of the Internal Revenue Code. Each participant in the 401(k) Plan may contribute up to the statutory limit of his or her pre-tax compensation. In addition, we can make discretionary matching contributions. All salary deferrals, rollovers and matching contributions are 100% vested when contributed. The 401(k) Plan provides for automatic salary deferrals of 3% of compensation with a 1% escalator each year. Participants are permitted to waive the automatic deferral provision.

Limitation of Liability and Indemnification

Our Certificate of Incorporation will contain provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors will not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law, or the DGCL; or
- any transaction from which the director derived an improper personal benefit.

Our Certificate of Incorporation and our Bylaws will provide that we are required to indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law. Our Bylaws will also provide that we may indemnify a director, officer, employee or agent (including the advancement of the final disposition of any action or proceeding), and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under Delaware law. We have entered and expect to continue to enter into agreements to indemnify and advance expenses to our directors, executive officers and other employees as determined by our board of directors. With specified exceptions, these agreements provide for indemnification for related expenses including, among other things, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these Bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our Certificate of Incorporation and our Bylaws may discourage stockholders from bringing a lawsuit against our directors and officers for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and our stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage.

Director Compensation

We do not currently have a formal compensation program for our non-employee directors. No compensation was paid to our non-employee directors during the year ended December 31, 2021.

We are currently considering a compensation program for our non-employee directors for future implementation that may consist of annual retainer fees or long-term equity awards; however, there can be no assurance at this time that such a program will be implemented or that it will consist of the components noted here. Directors who are also our employees will not receive fees for service on our board of directors.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Other than the compensation agreements and other arrangements described in the "Executive Compensation" section of this prospectus and the transactions described below, since January 1, 2018, there has not been and there is not currently proposed, any transaction or series of similar transactions to which we were, or will be, a party in which the amount involved exceeded, or will exceed, $120,000 and in which any director, executive officer, holder of 5% or more of any class of our capital stock or any member of the immediate family of, or entities affiliated with, any of the foregoing persons, had, or will have, a direct or indirect material interest.

Series C Preferred Stock Financing

On September 26, 2018, we entered into a Series C Preferred Stock Purchase Agreement, pursuant to which we issued and sold an aggregate of 26,732,361 shares of its Series C convertible preferred stock at a price per share of $0.9539, for an aggregate purchase price of approximately $25.5 million. The following table sets forth the aggregate number of shares of our Series C preferred stock that we issued and sold to our directors, officers and 5% stockholders and their affiliates in this transaction and the aggregate amount of consideration for such shares:

Purchaser[1]	Shares of Series C preferred stock	Cash purchase price
Entities affiliated with Telegraph Hill Partners	22,974,675	$21,915,542
The Board of Trustees of the Leland Stanford Junior University	2,363,411	$ 2,254,458
Matt Winkler	838,662	$ 800,000

(1) See "Principal Stockholders" for additional information about shares held by these entities.

Series D Preferred Stock Financing

On September 27, 2019, the Registrant entered into a Series D Preferred Stock Purchase Agreement, pursuant to which it issued and sold an aggregate of 16,390,217 shares of its Series D convertible preferred stock at a price per share of $1.5253, for an aggregate purchase price of approximately $25.0 million. The following table sets forth the aggregate number of shares of our Series D preferred stock that we issued and sold to our directors, officers and 5% stockholders and their affiliates in this transaction and the aggregate amount of consideration for such shares:

Purchaser[1]	Shares of Series D preferred stock	Cash purchase price
Piper Sandler Merchant Banking Fund II, L.P.	6,556,087	$10,000,000
Entities affiliated with Telegraph Hill Partners	1,966,826	$ 3,000,000
The Board of Trustees of the Leland Stanford Junior University	1,004,988	$ 1,532,908
Matt Winkler	371,793	$ 567,096

(1) See "Principal Stockholders" for additional information about shares held by these entities.

Agreements with our Stockholders

In connection with our Series D convertible preferred stock financing, in September 2019 we entered into an amended and restated investors' rights agreement, or the Investors' Rights Agreement, an amended and restated right of first refusal and co-sale agreement, or the Co-Sale Agreement, and an amended and restated voting agreement, or the Voting Agreement, in each case with Telegraph Hill Partners, Piper Sandler Merchant Banking Fund II, L.P., Stanford and Mr. Winkler. The Investors' Rights Agreement provides certain information and registration rights. All rights under the Investors' Right Agreement, other

than the registration rights, terminate automatically upon the closing of this offering. See the "Description of Capital Stock — Registration Rights" section of this prospectus for more information regarding the registration rights provided in this agreement. The Co-Sale Agreement provides certain rights to purchase securities offered by, and to co-sell along with, a proposed seller of securities. The Co-Sale Agreement will terminate automatically upon the closing of this offering.

The Voting Agreement contains provisions with respect to the election of our board of directors and its composition. Pursuant to the Voting Agreement, all of our current directors were each elected to serve as members on our board of directors. Pursuant to the Voting Agreement, Mr. McKelligon, as our Chief Executive Officer, serves on our board of directors as a representative of our common stockholders, as designated by the holders of a majority of our common stock. Pursuant to the Voting Agreement, Thomas P. Schnettler, a principal of Piper Sandler Merchant Banking Fund II, L.P., was elected to the board. Piper Sandler Merchant Banking Fund II, L.P. is an affiliate of Piper Sandler & Co., an underwriter participating in this offering. See "Underwriting."

Agreements with Stanford

On November 17, 2015, we entered into an exclusive (equity) agreement with Stanford pursuant to which we obtained an exclusive, worldwide license in all fields under Stanford's Codex patent estate. Pursuant to the agreement (as amended), we are required to pay Stanford an annual license fee of $20,000 to $50,000 (which is creditable against royalty payments made to Stanford in the applicable year), royalties of 2.25% on our net sales of our Codex product and a specified percentage of non-royalty sublicensing income. The term of the agreement continues until the expiration of the last licensed patent unless earlier terminated in accordance with the agreement. For the years ended December 31, 2020, 2019 and 2018, we paid license fees and royalties to Stanford of $0.1 million, $0.2 million and $0.1 million, respectively.

We sell reagent kits to Stanford on a purchase order basis. For the years ended December 31, 2020, 2019, and 2018, we recognized revenue from Stanford of $0.4 million, $0.4 million, and $0.1 million, respectively.

Argonaut Manufacturing

We purchase all of our reagent kits for our Codex and Phenoptics platforms from Argonaut Manufacturing Services ("Argonaut"). Argonaut is a portfolio company of Telegraph Hill Partners. During the year ended December 31, 2020, the Company incurred costs of goods sold ofapproximately $1.5 million related to sales of consumables manufactured by Argonaut Manufacturingservices. As of December 31, 2020 and 2019, $1.3 million and $0.3 million, respectively, is included in inventory related to consumables manufactured by Argonaut Manufacturing services. We currently purchase our reagent kits on a purchase order basis, with no minimum or maximum obligations.

Director affiliations

Some of our directors are affiliated with and serve on our board of directors as representatives of entities which beneficially own or owned 5% or more of our common stock, as indicated below:

Director	Principal stockholder
Thomas Raffin	Funds affiliated with Telegraph Hill Partners
Thomas P. Schnettler	Piper Sandler Merchant Banking Fund II, L.P.
Robert Shepler	Funds affiliated with Telegraph Hill Partners

Thomas P. Schnettler, is a principal of Piper Sandler Merchant Banking Fund II, L.P., which is an affiliate of Piper Sandler & Co., an underwriter participating in this offering. See "Underwriting.

Indemnification Agreements

We have entered into indemnification agreements with each of our directors and executive officers. These agreements, among other things, require us to indemnify each director and executive officer to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys' fees,

judgments, penalties fines and settlement amounts incurred by the director or executive officer in any action or proceeding, including any action or proceeding by or in right of us, arising out of the person's services as a director or executive officer.

Policies and Procedures for Related Party Transactions

Our board of directors has adopted a written related person transaction policy, to be effective upon the consummation of this offering, setting forth the policies and procedures for the review and approval or ratification of related person transactions. This policy will cover, with certain exceptions set forth in Item 404 of Regulation S-K under the Securities Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships in which we were or are to be a participant, where the amount involved exceeds $120,000 and a related person had or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related person. In reviewing and approving any such transactions, our audit committee is tasked to consider all relevant facts and circumstances, including, but not limited to, whether the transaction is on terms comparable to those that could be obtained in an arm's length transaction with an unrelated third party and the extent of the related person's interest in the transaction. All of the transactions described in this section occurred prior to the adoption of this policy.

PRINCIPAL STOCKHOLDERS

The following table sets forth information with respect to the beneficial ownership of our common stock as of December 31, 2020, and as adjusted to reflect the sale of our common stock offered by us in this offering, for:

- each of our named executive officers;
- each of our directors;
- all of our current directors and executive officers as a group; and
- each person, or group of affiliated persons, known by us to be the beneficial owner of more than 5% of our outstanding shares common stock.

We have determined beneficial ownership in accordance with the rules of the SEC, which generally means that a person has beneficial ownership of a security if he or she possesses sole or shared voting or investment power of that security, including options that are currently exercisable or exercisable within 60 days of December 31, 2020. Unless otherwise indicated, to our knowledge, the persons and entities named in the table below have sole voting and sole investment power with respect to all shares that they beneficially own, subject to community property laws where applicable. The information in the table below does not necessarily indicate beneficial ownership for any other purpose, including for purposes of Sections 13(d) and 13(g) of the Securities Act.

We have based our calculation of the percentage of beneficial ownership prior to this offering on 67,824,846 shares of common stock outstanding as of December 31, 2020. We have based our calculation of the percentage of beneficial ownership after this offering on shares of common stock outstanding immediately after the closing of this offering. In computing the number of shares beneficially owned by an individual or entity and the percentage ownership of that person, shares of common stock subject to options, convertible securities or other rights, held by such person that are currently exercisable or will become exercisable within 60 days of December 31, 2020, are considered outstanding. We did not, however, deem such shares outstanding for the purpose of computing the percentage ownership of any other person.

Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Akoya Biosciences, Inc., 100 Campus Drive, 6th Floor, Marlborough, Massachusetts 01752.

Name of Beneficial Owner	Number of Shares Beneficially Owned Prior to Offering	Percentage of Shares Beneficially Owned	
		Prior to this Offering	After this Offering
5% and Greater Stockholders:			
Entities affiliated with Telegraph Hill Partners[1]	36,523,336	53.8%	
Piper Sandler Merchant Banking Fund II, L.P.[2]	6,556,087	9.7%	
The Board of Trustees at the Leland Stanford Junior University[3]	5,228,001	7.7%	
Named Executive Officers and Directors:			
Brian McKelligon[4]	1,553,767	2.2%	
Joseph Driscoll[5]	714,062	1.0%	
Niro Ramachandran	—	—	
Garry Nolan[6]	1,645,013	2.4%	
Thomas Raffin[7]	37,523,336	55.3%	
Tom Schnettler[2]	6,556,087	9.7%	
Robert Shepler[8]	500,000	*	
Matt Winkler	1,820,025	2.7%	
All executive officers and directors as a group (8 persons)	50,312,290	71.0%	

* less than 1%.

(1) Consists of (i) 32,932,602 shares of common stock held by Telegraph Hill Partners III, L.P. ("THP III") and (ii) 3,590,734 shares of common stock held by THP III Affiliates Fund, LLC ("THP III AFF"). Telegraph Hill Partners III Investment Management, LLC ("THP IM") is the general partner of THP III and the manager of THP III AFF. Telegraph Hill Partners Management Company, LLC ("THPMC") is the manager of THP IM. J. Matthew Mackowski, Dr. Thomas A. Raffin and Deval Lashkari are each managers of THPMC and are deemed to have beneficial ownership of the shares held by THP III and THP III Affiliates. The address for Telegraph Hill Partners is 360 Post Street, Suite 601, San Francisco, California 94108.

(2) PSC Capital Management II LLC is the general partner of Piper Sandler Merchant Banking Fund II, L.P. Piper Sandler Companies is the manager of PSC Capital Management II LLC. Tom Schnettler, the Co-CEO of PSC Capital Management II LLC, disclaims beneficial ownership of the shares held by Piper Sandler Merchant Banking Fund II, L.P. The address for Piper Sandler Merchant Banking Fund II, L.P. is 800 Nicollet Mall Suite 1000 Minneapolis, MN 55402.

(3) Consists of 5,228,001 shares held by The Board of Trustees at the Leland Stanford Junior University. The Board of Trustees at the Leland Stanford Junior University has sole voting and dispositive power over such shares.

(4) Consists of 1,553,767 shares of common stock issuable upon exercise of options exercisable within 60 days of December 31, 2020.

(5) Consists of 714,062 shares of common stock issuable upon exercise of options exercisable within 60 days of December 31, 2020.

(6) Consists of (i) 1,584,597 shares of common stock held directly by Mr. Nolan, and (ii) 60,416 shares of common stock issuable upon exercise of options exercisable within 60 days of December 31, 2020.

(7) Consists of (i) 1,000,000 shares of common stock held directly by Mr. Raffin, (ii) 32,932,602 shares of common stock held by THP III and (b) 3,590,734 shares of common stock held by THP III AFF. Mr. Raffin is a managing member of THPMC and is deemed to have beneficial ownership of the shares held by THP III and THP III Affiliates. Mr. Raffin disclaims beneficial ownership of such securities held by THP III and THP III Affiliates, except to the extent of any pecuniary interest therein.

(8) Mr. Shepler is a former managing member of THPMC and has a pecuniary interest in the shares held by THP III and THP III Affiliates. Mr. Shepler disclaims beneficial ownership of such securities held by THP III and THP III Affiliates, except to the extent of any pecuniary interest therein.

DESCRIPTION OF CAPITAL STOCK

General

As of the closing of this offering, our authorized capital stock will consist of 500,000,000 shares of common stock, par value $0.00001 per share, and 10,000,000 shares of preferred stock, par value $0.00001 per share.

The following descriptions of our capital stock, provisions of our Certificate of Incorporation, our Bylaws and the Investors' Rights Agreement are summaries and are qualified by reference to the full text of those documents, copies of which will be filed with the SEC as exhibits to the registration statement of which this prospectus forms a part. The following summary of relevant provisions of the DGCL is qualified by the full text of such provisions. The description of our capital stock reflects changes to our capital structure that will occur prior to the closing of this offering.

Because these are only summaries, they do not contain all the information that may be important to you. We expect to adopt a restated certificate of incorporation and restated bylaws that will become effective upon the completion of this offering, and this description summarizes provisions that are expected to be included in these documents.

Common Stock

As of December 31, 2020, we had no shares of Class A common stock and 5,973,605 shares of Class B common Stock outstanding and 61,851,241 shares of preferred stock outstanding. After giving effect to the conversion of all outstanding shares of Class B common stock and preferred stock into shares of common stock immediately prior to the closing of this offering, there would have been 67,824,846 shares of common stock outstanding on December 31, 2020, held of record by stockholders.

The holders of common stock will be entitled to one vote per share on all matters to be voted upon by the stockholders. The holders of common stock will be entitled to receive ratably those dividends, if any, that may be declared from time to time by our board of directors out of funds legally available, subject to preferences that may be applicable to preferred stock, if any, then outstanding. In the event of a liquidation, dissolution or winding up of our company, the holders of common stock will be entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock, if any, then outstanding. The common stock will have no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. Following the closing of this offering, all outstanding shares of common stock will be fully paid and non-assessable.

Preferred Stock

No shares of preferred stock will be issued or outstanding immediately after the offering contemplated by this prospectus. Our Certificate of Incorporation will authorize our board of directors to establish one or more series of preferred stock (including convertible preferred stock). Unless required by law or any stock exchange, the authorized shares of preferred stock will be available for issuance without further action by the holders of our common stock. Our board of directors will be able to determine, with respect to any series of preferred stock, the powers (including voting powers), preferences and relative, participating, optional or other special rights, and the qualifications, limitations, or restrictions thereof, including:

- the designation of the series;
- the number of shares of the series, which our board of directors may, except where otherwise provided in the preferred stock designation, increase (but not above the total number of authorized shares of the class) or decrease (but not below the number of shares then outstanding);
- whether dividends, if any, will be cumulative or non-cumulative and the dividend rate of the series;
- the dates at which dividends, if any, will be payable;
- the redemption or repurchase rights and price or prices, if any, for shares of the series;

- the terms and amounts of any sinking fund provided for the purchase or redemption of shares of the series;
- the amounts payable on shares of the series in the event of any voluntary or involuntary liquidation, dissolution or winding-up of our affairs;
- whether the shares of the series will be convertible into shares of any other class or series, or any other security, of us or any other entity, and, if so, the specification of the other class or series or other security, the conversion price or prices or rate or rates, any rate adjustments, the date or dates as of which the shares will be convertible and all other terms and conditions upon which the conversion may be made;
- restrictions on the issuance of shares of the same series or of any other class or series; and
- the voting rights, if any, of the holders of the series.

We could issue a series of preferred stock that could, depending on the terms of the series, impede or discourage an acquisition attempt or other transaction that some, or a majority, of the holders of our common stock might believe to be in their best interests or in which the holders of our common stock might receive a premium over the market price of the shares of our common stock. Additionally, the issuance of preferred stock may adversely affect the rights of holders of our common stock by restricting dividends on the common stock, diluting the voting power of the common stock, or subordinating the liquidation rights of the common stock. As a result of these or other factors, the issuance of preferred stock could have an adverse impact on the market price of our common stock.

Registration Rights

Upon the closing of this offering, holders of 61,851,241 shares of our common stock, which shares we refer to as "registrable securities," will be entitled to rights with respect to the registration of these registrable securities under the Securities Act. These rights are provided under the terms of the Investors' Rights Agreement. The Investors' Rights Agreement includes demand registration rights and piggyback registration rights.

All underwriting discounts applicable to the sale of registrable securities pursuant to the Investors' Rights Agreement shall be borne by the holders of registrable securities participating in such sale. Any additional expenses incurred in connection with exercise of registration rights under the Investors' Rights Agreement, including all registration, filing and qualification fees, printers' and accounting fees, and fees and disbursements of our counsel shall be borne by us.

Subject to certain exceptions contained in the Investors' Rights Agreement, the underwriters may limit the number of shares included in an underwritten offering by holders of registrable securities to the number of shares which the underwriters determine in their sole discretion will not jeopardize the success of the offering.

Demand Registration Rights

Form S-1. If at any time beginning six months following the effective date of the registration statement of which this prospectus forms a part, investors holding at least 65% of the registrable securities then outstanding request in writing that we effect a registration and the anticipated price to the public of such registrable securities is $10.0 million or more, we may be required to register their shares. We are obligated to effect at most two registrations for the holders of registrable securities in response to these demand registration rights, subject to certain exceptions.

Form S-3. If at any time we become entitled under the Securities Act to register our shares on Form S-3, investors holding at least 65% of the registrable securities then outstanding request in writing that we register their shares for public resale on Form S-3 and the price to the public of the offering is $1.0 million or more, we will be required to provide notice to all holders of registrable securities and to use all reasonable efforts to effect such registration; provided, however, that we will not be required to effect such a registration if, we have already effected two registrations on Form S-1 for the holders of registrable securities.

Piggyback Registration Rights

After the closing of this offering, if we propose to register the offer and sale of any of our securities under the Securities Act in connection with the public offering of such securities, the holders of registrable securities will be entitled to certain "piggyback" registration rights allowing such holders to include their shares in such registration, subject to certain limitations. As a result, whenever we propose to file a registration statement under the Securities Act, other than with respect to a registration related solely to an employee benefit plan, a registration related solely to a corporate reorganization or transaction under Rule 145 of the Securities Act or any rule adopted by the SEC in substitution thereof or amendment thereto, or a registration on any registration form which does not include substantially the same information as would be required to be included in a registration statement covering the sale of registrable securities, the holders of these shares are entitled to notice of the registration and have the right to include their shares in the registration.

Anti-Takeover Matters in our Governing Documents and Under Delaware Law

Our Certificate of Incorporation and our Bylaws will contain, and the DGCL contains, provisions that are intended to enhance the likelihood of continuity and stability in the composition of our board of directors. These provisions are intended to avoid costly takeover battles, reduce our vulnerability to a hostile or abusive change of control, and enhance the ability of our board of directors to maximize stockholder value in connection with any unsolicited offer to acquire us. However, these provisions may have an antitakeover effect and may delay, deter, or prevent a merger or acquisition by means of a tender offer, a proxy contest, or other takeover attempt that a stockholder might consider in its best interest, including those attempts that might result in a premium over the prevailing market price for the shares of common stock held by stockholders.

Authorized But Unissued Capital Stock

The authorized but unissued shares of common stock and preferred stock are available for future issuance without stockholder approval, subject to any limitations imposed by the listing standards of Nasdaq. These additional shares may be used for a variety of corporate finance transactions, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could make more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger, or otherwise.

Classified Board of Directors

Our Certificate of Incorporation will provide that our board of directors will be divided into three classes, with the classes as nearly equal in number as possible and each class serving three-year staggered terms. Directors may only be removed from our board of directors for cause by the affirmative vote of at least 66⅔% of the voting power of all of our then-outstanding shares of capital stock entitled to vote generally in the election of directors, voting together as a single class. In addition, our Certificate of Incorporation will provide that, subject to the rights granted to one or more series of preferred stock then outstanding, any newly created directorship on the board of directors that results from an increase in the number of directors and any vacancies on our board of directors will be filled only by the affirmative vote of a majority of the remaining directors, even if less than a quorum, or by a sole remaining director. After this offering, a director chosen to fill a position resulting from an increase in the number of directors will hold office until the next election of the director's class and until the director's successor is duly elected and qualified, or until the director's earlier death, resignation or removal. These provisions may have the effect of deferring, delaying, or discouraging hostile takeovers, changes in control of us or changes in our management.

Delaware Anti-Takeover Law

After this offering, we will be subject to Section 203 of the DGCL, which is an anti-takeover law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years following the date that the person became an interested stockholder, unless the business combination or the transaction in which the person became an interested stockholder is approved in a prescribed manner. Generally, a business combination includes a

merger, asset or stock sale, or another transaction resulting in a financial benefit to the interested stockholder. Generally, an interested stockholder is a person who, together with affiliates and associates, owns 15% or more of the corporation's outstanding voting stock or is the corporation's affiliate or associate and was the owner of 15% or more of the corporation's outstanding voting stock at any time within the three-year period immediately before the date of determination. The existence of this provision may have an anti-takeover effect with respect to transactions that are not approved in advance by our board, including discouraging attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

No Cumulative Voting

Under Delaware law, the right to vote cumulatively does not exist unless the certificate of incorporation specifically authorizes cumulative voting. Our Certificate of Incorporation will not authorize cumulative voting. Therefore, stockholders holding a majority of the shares of our stock entitled to vote generally in the election of directors will be able to elect all of our directors.

Special Stockholder Meetings

Our Certificate of Incorporation will provide that special meetings of our stockholders may be called at any time only by or at the direction of the board of directors, the chair of the board of directors or our Chief Executive Officer. Our Bylaws will prohibit the conduct of any business at a special meeting other than as specified in the notice for such meeting. These provisions may have the effect of deferring, delaying, or discouraging hostile takeovers or changes in control or management.

Director Nominations and Stockholder Proposals

Our Bylaws will establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors. In order for any matter to be "properly brought" before a meeting, a stockholder will have to comply with advance notice requirements and provide us with certain information. Generally, to be timely, a stockholder's notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the immediately preceding annual meeting of stockholders. Our Bylaws will also specify requirements as to the form and content of a stockholder's notice. Our Bylaws will allow the chair of a meeting of the stockholders to adopt rules and regulations for the conduct of that meeting that may have the effect of precluding the conduct of certain business at that meeting if the rules and regulations are not followed. These provisions may also defer, delay, or discourage a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to influence or obtain control.

Stockholder Action by Written Consent

Pursuant to Section 228 of the DGCL, any action required to be taken at any annual or special meeting of the stockholders may be taken without a meeting, without prior notice, and without a vote if a consent or consents in writing, setting forth the action so taken, is or are signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares of our stock entitled to vote thereon were present and voted, unless the certificate of incorporation provides otherwise. Our Certificate of Incorporation will preclude stockholder action by written consent.

Amendment of Certificate of Incorporation or Bylaws

The DGCL provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Upon the closing of this offering, our Bylaws may be amended or repealed by a majority vote of our board of directors or by the affirmative vote of the holders of at least 66⅔% of the votes which all our stockholders would be entitled to cast in any annual election of directors. In addition, the affirmative vote of the holders of at least 66⅔% of the votes which all our stockholders would be entitled to cast in any election of directors will be

required to amend or repeal or to adopt any provisions inconsistent with any of the provisions of our Certificate of Incorporation described above.

The foregoing provisions of our Certificate of Incorporation and our Bylaws could discourage potential acquisition proposals and could delay or prevent a change in control. These provisions are intended to enhance the likelihood of continuity and stability in the composition of our board of directors and in the policies formulated by our board of directors and to discourage certain types of transactions that may involve an actual or threatened change of control. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions also are intended to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they also may inhibit fluctuations in the market price of our shares of common stock that could result from actual or rumored takeover attempts. Such provisions also may have the effect of preventing changes in our management or delaying or preventing a transaction that might benefit you or other minority stockholders.

Exclusive Forum

Our Certificate of Incorporation will provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware be the sole and exclusive forum for: (1) any derivative action or proceeding brought on behalf of our company, (2) any action asserting a claim of breach of fiduciary duty owed by any director, officer, agent, or other employee or stockholder of our company to us or our stockholders, (3) any action asserting a claim arising pursuant to any provision of the DGCL, our Certificate of Incorporation or our Bylaws or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware, or (4) any action asserting a claim governed by the internal affairs doctrine, in each case subject to such Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein. It will further provide that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by law, be the sole and exclusive forum for the resolutions of any complaint asserting a cause of action arising under the Securities Act. The exclusive forum clauses described above shall not apply to suits brought to enforce a duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. Although we believe these provisions benefit us by providing increased consistency in the application of applicable law in the types of lawsuits to which they apply, the provisions may have the effect of discouraging lawsuits against our directors and officers. The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings and there is uncertainty as to whether a court would enforce such provisions. In addition, investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder. It is possible that, in connection with any applicable action brought against us, a court could find the choice of forum provisions contained in our Certificate of Incorporation to be inapplicable or unenforceable in such action. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and consented to the forum provisions in our Certificate of Incorporation.

Limitations of Liability and Indemnification

The DGCL authorizes corporations to limit or eliminate the personal liability of directors to corporations and their stockholders for monetary damages for breaches of directors' fiduciary duties, subject to certain exceptions. Our Certificate of Incorporation includes a provision that eliminates the personal liability of directors for monetary damages to the corporation or its stockholders for any breach of fiduciary duty as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the DGCL. The effect of these provisions is to eliminate the rights of us and our stockholders, through stockholders' derivative suits on our behalf, to recover monetary damages from a director for breach of fiduciary duty as a director, including breaches resulting from grossly negligent behavior. However, exculpation does not apply to any breaches of the director's duty of loyalty, any acts or omissions not in good faith or that involve intentional misconduct or knowing violation of law, any authorization of dividends or stock redemptions or repurchases paid or made in violation of the DGCL, or for any transaction from which the director derived an improper personal benefit.

Our Bylaws will generally provide that we must indemnify and advance expenses to our directors and officers to the fullest extent authorized by the DGCL. We also are expressly authorized to carry directors' and officers' liability insurance providing indemnification for our directors, officers and certain employees for some liabilities. We believe these indemnification and advancement provisions and insurance are useful to attract and retain qualified directors and executive officers.

The limitation of liability, indemnification and advancement provisions in our Certificate of Incorporation and our Bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duty. These provisions also may have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. In addition, your investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

There is currently no pending material litigation or proceeding involving any of our directors, officers or employees for which indemnification is sought.

We intend to enter into an indemnification agreement with each of our directors and executive officers as described in "Certain Relationships and Related Party Transactions — Indemnification Agreements." Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors or executive officers, we have been informed that in the opinion of the SEC such indemnification is against public policy and is therefore unenforceable.

Transfer Agent and Registrar

Upon the closing of this offering, the transfer agent and registrar for our common stock will be . The transfer agent's address is .

Nasdaq Listing

We intend to apply to list our common stock on Nasdaq under the symbol "AKYA."

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock, and we cannot predict the effect, if any, that market sales of shares of our common stock or the availability of shares of our common stock for sale will have on the market price of our common stock prevailing from time to time. Future sales of our common stock in the public market, or the availability of such shares for sale in the public market, could adversely affect market prices prevailing from time to time. As described below, only a limited number of shares of our common stock will be available for sale shortly after this offering due to contractual and legal restrictions on resale. Nevertheless, sales of our common stock in the public market after such restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price at such time and our ability to raise equity capital in the future.

Following the closing of this offering, based on the number of shares of our capital stock outstanding as of December 31, 2021, shares of common stock will be outstanding. Of these outstanding shares, all of the shares of our common stock sold in this offering will be freely tradable, except that any shares purchased in this offering by our affiliates, as that term is defined in Rule 144 under the Securities Act, would only be able to be sold in compliance with the Rule 144 limitations described below.

The remaining outstanding shares of our common stock not sold in this offering will be, and shares subject to stock options will, upon issuance, be deemed "restricted securities" as defined in Rule 144 under the Securities Act. Restricted securities may be sold in the public market only if they are registered or if they qualify for an exemption from registration under Rule 144 or Rule 701 under the Securities Act, which rules are summarized below. All of our executive officers, directors and holders of substantially all of our capital stock and securities exchangeable or exercisable for our capital stock have entered into lock-up agreements with the underwriters under which they have agreed, subject to certain customary exceptions, not to sell any of our stock for 180 days following the date of this prospectus. As a result of these agreements and subject to the provisions of Rule 144 or Rule 701, shares of our common stock will be available for sale in the public market as follows:

- beginning on the date of this prospectus, all shares of our common stock sold in this offering will be immediately available for sale in the public market; and
- beginning 181 days after the date of this prospectus, the remaining 67,824,846 shares of our common stock will be eligible for sale in the public market from time to time thereafter, subject in some cases to the volume and other restrictions of Rule 144, as described below.

Lock-Up Agreements

All of our directors and officers and security holders are, or will be, subject to lock-up agreements or market standoff provisions that prohibit them from offering for sale, selling, contracting to sell, granting any option for the sale of, transferring or otherwise disposing of any shares of our common stock, options to acquire shares of our common stock or any security or instrument related to our common stock, or entering into any swap, hedge or other arrangement that transfers any of the economic consequences of ownership of our common stock, for a period of 180 days following the date of this prospectus without the prior written consent of J.P. Morgan Securities LLC and Morgan Stanley & Co. LLC, subject to certain exceptions. See the section entitled "Underwriting" for more information.

Rule 144

In general, under Rule 144 as currently in effect, once we have been subject to the public company reporting requirements of Section 13 or Section 15(d) of the Exchange Act for at least 90 days, a person who is not deemed to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and who has beneficially owned the shares of our common stock proposed to be sold for at least six months is entitled to sell those shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then that person would be entitled to sell those shares without complying with any of the requirements of Rule 144.

In general, under Rule 144, as currently in effect, our affiliates or persons selling shares of our common stock on behalf of our affiliates are entitled to sell upon expiration of the market standoff agreements and lock-up agreements described above, within any three-month period, a number of shares that does not exceed the greater of:

- 1% of the number of shares of our capital stock then outstanding, which will equal shares immediately after this offering; or
- the average weekly trading volume of our common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to that sale.

Sales under Rule 144 by our affiliates or persons selling shares of our common stock on behalf of our affiliates are also subject to manner of sale provisions and notice requirements and to the availability of current public information about us.

Rule 701

Rule 701 generally allows a stockholder who purchased shares of our capital stock pursuant to a written compensatory plan or contract and who is not deemed to have been an affiliate of our company during the immediately preceding 90 days to sell these shares in reliance upon Rule 144, but without being required to comply with the public information, holding period, volume limitation or notice provisions of Rule 144. Rule 701 also permits affiliates of our company to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. All holders of Rule 701 shares, however, are required to wait until 90 days after the date of this prospectus before selling those shares pursuant to Rule 701.

Form S-8 Registration Statement

We intend to file a registration statement on Form S-8 under the Securities Act promptly after the closing of this offering to register shares of our common stock subject to options outstanding, as well as reserved for future issuance, under our equity compensation plans. The registration statement on Form S-8 is expected to become effective immediately upon filing, and shares of our common stock covered by the registration statement will then become eligible for sale in the public market, subject to the Rule 144 limitations applicable to affiliates, vesting restrictions and any applicable market standoff agreements and lock-up agreements. See the section captioned “Executive Compensation — Employee Benefit and Equity Incentive Plans” for a description of our equity compensation plans.

Registration Rights

We have granted certain registration rights to certain of our stockholders to sell our common stock. Registration of the sale of these shares under the Securities Act would result in these shares becoming freely tradable without restriction under the Securities Act immediately upon the effectiveness of the registration, except for shares purchased by affiliates. For a further description of these rights, see the section entitled “Description of Capital Stock — Registration Rights.”

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following is a summary of the material U.S. federal income tax consequences to non-U.S. holders (as defined below) of the ownership and disposition of our common stock issued pursuant to this offering. This discussion is not a complete analysis of all potential U.S. federal income tax consequences relating thereto, does not address the potential application of the Medicare contribution tax on net investment income, and does not address any estate or gift tax consequences or any tax consequences arising under any state, local or non-U.S. tax laws, or any other U.S. federal tax laws. This discussion is based on the Code, Treasury Regulations promulgated thereunder, judicial decisions and published rulings and administrative pronouncements of the IRS, all as in effect on the date of this prospectus supplement. These authorities are subject to differing interpretations and may change, possibly retroactively, resulting in U.S. federal income tax consequences different from those discussed below. We have not requested a ruling from the IRS with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS or a court would agree with such statements and conclusions.

This discussion is limited to non-U.S. holders who purchase our common stock pursuant to this offering and who hold our common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all of the U.S. federal income tax consequences that may be relevant to an individual holder in light of such holder's particular circumstances. This discussion also does not consider any specific facts or circumstances that may be relevant to non-U.S. holders subject to special rules under the U.S. federal income tax laws, including:

- certain former citizens or long-term residents of the United States;
- partnerships or other pass-through entities (and investors therein);
- "controlled foreign corporations";
- "passive foreign investment companies";
- corporations that accumulate earnings to avoid U.S. federal income tax;
- banks, financial institutions, investment funds, insurance companies, brokers, dealers or traders in securities;
- tax-exempt organizations and governmental organizations;
- tax-qualified retirement plans;
- persons subject to the alternative minimum tax;
- persons subject to special tax accounting rules under Section 451(b) of the Code;
- persons that own or have owned, actually or constructively, more than 5% of our common stock;
- persons who have elected to mark securities to market; and
- persons holding our common stock as part of a hedging or conversion transaction or straddle, or a constructive sale, or other risk reduction strategy or integrated investment.

If an entity or arrangement that is classified as a partnership for U.S. federal income tax purposes holds our common stock, the U.S. federal income tax treatment of a partner in the partnership will generally depend on the status of the partner and the activities of the partnership. Partnerships holding our common stock and the partners in such partnerships are urged to consult their tax advisors about the particular U.S. federal income tax consequences to them of holding and disposing of our common stock.

PROSPECTIVE INVESTORS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR U.S. FEDERAL INCOME TAX CONSEQUENCES TO THEM OF ACQUIRING, OWNING AND DISPOSING OF OUR COMMON STOCK, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL OR FOREIGN TAX LAWS AND ANY OTHER U.S. FEDERAL TAX LAWS.

Definition of Non-U.S. Holder

For purposes of this discussion, a non-U.S. holder is any beneficial owner of our common stock that is not a "U.S. person" or a partnership (including any entity or arrangement treated as a partnership) or other

pass-through entity for U.S. federal income tax purposes. A U.S. person is any person that is or is treated as any of the following:

- an individual who is a citizen or resident of the United States, as determined for U.S. federal income tax purposes;
- a corporation (including any entity treated as a corporation for U.S. federal income tax purposes) created or organized under the laws of the United States, any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust (1) whose administration is subject to the primary supervision of a U.S. court and which has one or more U.S. persons who have the authority to control all substantial decisions of the trust or (2) that has a valid election in effect under applicable Treasury Regulations to be treated as a U.S. person.

If you are an individual non-U.S. citizen, you may, in some cases, be deemed to be a resident alien (as opposed to a nonresident alien) by virtue of being present in the United States for at least 31 days in the calendar year and for an aggregate of at least 183 days during a three-year period ending in the current calendar year. Generally, for this purpose, all the days present in the current year, one-third of the days present in the immediately preceding year, and one-sixth of the days present in the second preceding year, are counted.

Resident aliens are generally subject to U.S. federal income tax as if they were U.S. citizens. Individuals who are uncertain of their status as resident or nonresident aliens for U.S. federal income tax purposes are urged to consult their own tax advisors regarding the U.S. federal income tax consequences of the ownership or disposition of our common stock.

Distributions on Our Common Stock

If we distribute cash or other property on our common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts distributed in excess of our current and accumulated earnings and profits will constitute a return of capital and will first be applied against and reduce a non-U.S. holder's tax basis in our common stock, but not below zero. Any distribution in excess of a non-U.S. basis will be treated as gain realized on the sale or other disposition of our common stock and will be treated as described in the "*Gain On Disposition of Our Common Stock*" section below.

Subject to the discussion below regarding effectively connected income, backup withholding and FATCA (as defined below), dividends paid to a non-U.S. holder of our common stock generally will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends or such lower rate specified by an applicable income tax treaty. To receive the benefit of a reduced treaty rate, a non-U.S. holder must furnish the applicable withholding agent with a valid IRS Form W-8BEN or IRS Form W-8BEN-E (or other applicable form) certifying such non-U.S. holder's qualification for the reduced rate. This certification must be provided to the applicable withholding agent before the payment of dividends and generally must be updated periodically. If the non-U.S. holder holds our common stock through a financial institution or other agent acting on the non-U.S. holder's behalf, the non-U.S. holder will be required to provide appropriate documentation to the agent, which then will be required to provide certification to the applicable withholding agent, either directly or through other intermediaries.

If a non-U.S. holder holds our common stock in connection with the conduct of a trade or business in the United States, and dividends paid on our common stock are effectively connected with such non-U.S. holder's U.S. trade or business (and are attributable to a permanent establishment or fixed base maintained in the United States by such non-U.S. holder, if required by an applicable tax treaty), the non-U.S. holder will generally be exempt from U.S. federal withholding tax, provided that the non-U.S. holder furnishes a valid IRS Form W-8ECI (or applicable successor form) to the applicable withholding agent.

However, any such effectively connected dividends paid on our common stock generally will be subject to U.S. federal income tax on a net income basis at regular U.S. federal income tax rates in the same manner as if such non-U.S. holder were a resident of the United States. A non-U.S. holder that is a foreign

corporation also may be subject to an additional branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of its effectively connected earnings and profits for the taxable year, as adjusted for certain items.

Non-U.S. holders that do not provide the required certification on a timely basis, but that qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non-U.S. holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

Gain on Disposition of Our Common Stock

Subject to the discussion below regarding backup withholding and FATCA (as defined below), a non-U.S. holder generally will not be subject to U.S. federal income tax on any gain realized on the sale or other disposition of our common stock, unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States and, if required by an applicable income tax treaty, is attributable to a permanent establishment or fixed base maintained by the non-U.S. holder in the United States;
- the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition, and certain other requirements are met; or
- our common stock constitutes a "U.S. real property interest" by reason of our status as a U.S. real property holding corporation, or USRPHC, for U.S. federal income tax purposes at any time within the shorter of the five-year period preceding the disposition or the non-U.S. holder's holding period for our common stock, and our common stock is not regularly traded on an established securities market during the calendar year in which the sale or other disposition occurs.

Determining whether we are a USRPHC depends on the fair market value of our U.S. real property interests (if any) relative to the fair market value of our other trade or business assets and our foreign real property interests (if any). We believe we are not currently and we do not anticipate becoming a USRPHC for U.S. federal income tax purposes, although there can be no assurance we will not in the future become a USRPHC.

Gain described in the first bullet point above generally will be subject to U.S. federal income tax on a net income basis at regular U.S. federal income tax rates in the same manner as if such non-U.S. holder were a resident of the United States. A non-U.S. holder that is a foreign corporation also may be subject to an additional branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of its effectively connected earnings and profits for the taxable year, as adjusted for certain items. Gain described in the second bullet point above will be subject to U.S. federal income tax at a flat 30% rate (or such lower rate specified by an applicable income tax treaty), but may be offset by certain U.S.-source capital losses (even though the individual is not considered a resident of the United States), provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses. Gain described in the third bullet point above will generally be subject to U.S. federal income tax in the same manner as gain that is effectively connected with the conduct of a U.S. trade or business (subject to any provisions under an applicable income tax treaty), except that the branch profits tax generally will not apply.

Non-U.S. holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

Information Reporting and Backup Withholding

Annual reports are required to be filed with the IRS and provided to each non-U.S. holder indicating the amount of dividends on our common stock paid to such non-U.S. holder and the amount of any tax withheld with respect to those dividends. These information reporting requirements apply even if no withholding was required because the dividends were effectively connected with the non-U.S. holder's conduct of a U.S. trade or business, or withholding was reduced or eliminated by an applicable income tax treaty. This information also may be made available under a specific treaty or agreement with the tax authorities in the country in which the non-U.S. holder resides or is established.

Backup withholding, currently at a 24% rate, generally will not apply to payments to a non-U.S. holder of dividends on or the gross proceeds of a disposition of, our common stock provided the non-U.S. holder furnishes the required certification for its non-U.S. status, such as by providing a valid IRS Form W-8BEN, IRS Form W-8BEN-E, or IRS Form W-8ECI, or certain other requirements are met. Backup withholding may apply if the payor has actual knowledge, or reason to know, that the holder is a U.S. person who is not an exempt recipient.

Backup withholding is not an additional tax. If any amount is withheld under the backup withholding rules, the non-U.S. holder should consult with a U.S. tax advisor regarding the possibility of and procedure for obtaining a refund or a credit against the non-U.S. holder's U.S. federal income tax liability, if any.

Withholding on Foreign Entities

The Foreign Account Tax Compliance Act, or FATCA, as reflected in Sections 1471 through 1474 of the Code, imposes a U.S. federal withholding tax of 30% on certain payments, including dividends paid in respect of our common stock and, subject to the Proposed Treasury Regulations as discussed below, the gross proceeds of disposition on our common stock, made to a "foreign financial institution" (as specially defined under these rules) unless such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding certain U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners) or an exemption applies. FATCA also generally will impose a U.S. federal withholding tax of 30% on certain payments, including dividends paid in respect of our common stock and, subject to the Proposed Treasury Regulations as discussed below, the gross proceeds of disposition on our common stock, made to a non-financial foreign entity unless such entity provides the withholding agent a certification identifying certain direct and indirect U.S. owners of the entity or an exemption applies. An intergovernmental agreement between the United States and an applicable foreign country may modify these requirements. Under certain circumstances, a non-U.S. holder might be eligible for refunds or credits of such taxes. FATCA withholding currently applies to dividends paid on our common stock. Proposed Treasury Regulations, which may be relied upon until final Treasury Regulations are finalized, currently eliminate FATCA withholding on payments of gross proceeds from sales or other dispositions of our common stock.

Prospective investors are encouraged to consult with their own tax advisors regarding the possible implications of FATCA on their investment in our common stock.

EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGE IN APPLICABLE LAW, AS WELL AS TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL, NON-U.S. OR U.S. FEDERAL NON-INCOME TAX LAWS SUCH AS ESTATE AND GIFT TAX.

UNDERWRITING

We are offering the shares of common stock described in this prospectus through a number of underwriters. J.P. Morgan Securities LLC and Morgan Stanley & Co. LLC are acting as representatives of the underwriters. We have entered into an underwriting agreement with the underwriters, and subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus, the number of shares of common stock listed next to its name in the following table:

Name	Number of Shares
J.P. Morgan Securities LLC	
Morgan Stanley & Co. LLC	
Piper Sandler & Co.	
Canaccord Genuity LLC	
Total	

The underwriters are committed to purchase all the common shares offered by us if they purchase any shares. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or the offering may be terminated.

The underwriters propose to offer the common shares directly to the public at the initial public offering price set forth on the cover page of this prospectus and to certain dealers at that price less a concession not in excess of $ per share. Any such dealers may resell shares to certain other brokers or dealers at a discount of up to $ per share from the initial public offering price. After the initial offering of the shares to the public, if all of the common shares are not sold at the initial public offering price, the underwriters may change the offering price and the other selling terms. Sales of any shares made outside of the United States may be made by affiliates of the underwriters.

The underwriters have an option to buy up to additional shares of common stock from us to cover sales of shares by the underwriters which exceed the number of shares specified in the table above. The underwriters have 30 days from the date of this prospectus to exercise this option to purchase additional shares. If any shares are purchased with this option to purchase additional shares, the underwriters will purchase shares in approximately the same proportion as shown in the table above. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

The underwriting fee is equal to the public offering price per share of common stock less the amount paid by the underwriters to us per share of common stock. The underwriting fee is $ per share. The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

	Without option to purchase additional shares exercise	With full option to purchase additional shares exercise
Per Share	$	$
Total	$	$

We estimate that the total expenses of this offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding the underwriting discounts and commissions, will be approximately $. We have agreed to reimburse the underwriters for expenses of up to $ related to clearance of this offering with the Financial Industry Regulatory Authority, or FINRA.

A prospectus in electronic format may be made available on the web sites maintained by one or more underwriters, or selling group members, if any, participating in the offering. The underwriters may agree to

allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters and selling group members that may make Internet distributions on the same basis as other allocations.

We have agreed that we will not (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, or submit to, or file with, the Securities and Exchange Commission a registration statement under the Securities Act relating to, any shares of our common stock or securities convertible into or exercisable or exchangeable for any shares of our common stock, or publicly disclose the intention to make any offer, sale, pledge, loan, disposition or filing, or (ii) enter into any swap or other arrangement that transfers all or a portion of the economic consequences associated with the ownership of any shares of common stock or any such other securities (regardless of whether any of these transactions are to be settled by the delivery of shares of common stock or such other securities, in cash or otherwise), in each case without the prior written consent of J.P. Morgan Securities LLC and Morgan Stanley & Co. LLC for a period of 180 days after the date of this prospectus, other than the shares of our common stock to be sold in this offering.

The restrictions on our actions, as described above, do not apply to certain transactions, including (i) the issuance of shares of common stock or securities convertible into or exercisable for shares of our common stock pursuant to the conversion or exchange of convertible or exchangeable securities or the exercise of warrants or options (including net exercise) or the settlement of RSUs (including net settlement), in each case outstanding on the date of the underwriting agreement and described in this prospectus; (ii) grants of stock options, stock awards, restricted stock, RSUs, or other equity awards and the issuance of shares of our common stock or securities convertible into or exercisable or exchangeable for shares of our common stock (whether upon the exercise of stock options or otherwise) to our employees, officers, directors, advisors, or consultants pursuant to the terms of an equity compensation plan in effect as of the closing of this offering and described in this prospectus, provided that such recipients enter into a lock-up agreement with the underwriters.

Our directors, executive officers and all of our shareholders (such persons, the “lock-up parties”) have entered into lock-up agreements with the underwriters prior to the commencement of this offering pursuant to which each lock-up party, with limited exceptions, for a period of 180 days after the date of this prospectus (such period, the “restricted period”), may not (and may not cause any of their direct or indirect affiliates to), without the prior written consent of J.P. Morgan Securities LLC and Morgan Stanley & Co. LLC, (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exercisable or exchangeable for our common stock (including, without limitation, common stock or such other securities which may be deemed to be beneficially owned by such lock-up parties in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant (collectively with the common stock, the “lock-up securities”)), (2) enter into any hedging, swap or other agreement or transaction that transfers, in whole or in part, any of the economic consequences of ownership of the lock-up securities, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of lock-up securities, in cash or otherwise, (3) make any demand for, or exercise any right with respect to, the registration of any lock-up securities, or (4) publicly disclose the intention to do any of the foregoing. Such persons or entities have further acknowledged that these undertakings preclude them from engaging in any hedging or other transactions or arrangements (including, without limitation, any short sale or the purchase or sale of, or entry into, any put or call option, or combination thereof, forward, swap or any other derivative transaction or instrument, however described or defined) designed or intended, or which could reasonably be expected to lead to or result in, a sale or disposition or transfer (by any person or entity, whether or not a signatory to such agreement) of any economic consequences of ownership, in whole or in part, directly or indirectly, of any lock-up securities, whether any such transaction or arrangement (or instrument provided for thereunder) would be settled by delivery of lock-up securities, in cash or otherwise.

The restrictions described in the immediately preceding paragraph and contained in the lock-up agreements between the underwriters and the lock-up parties do not apply, subject in certain cases to various conditions, to certain transactions, including (a) transfers of lock-up securities: (i) as bona fide gifts,

or for bona fide estate planning purposes, (ii) by will or intestacy, (iii) to any trust for the direct or indirect benefit of the lock-up party or any immediate family member, (iv) to a partnership, limited liability company or other entity of which the lock-up party and its immediate family members are the legal and beneficial owner of all of the outstanding equity securities or similar interests, (v) to a nominee or custodian of a person or entity to whom a disposition or transfer would be permissible under clauses (i) through (iv), (vi) in the case of a corporation, partnership, limited liability company, trust or other business entity, (A) to another corporation, partnership, limited liability company, trust or other business entity that is an affiliate of the lock-up party, or to any investment fund or other entity controlling, controlled by, managing or managed by or under common control with the lock-up party or its affiliates or (B) as part of a distribution to members or stockholders of the lock-up party; (vii) by operation of law, (viii) to us from an employee upon death, disability or termination of employment of such employee, (ix) as part of a sale of lock-up securities acquired in open market transactions after the completion of this offering, (x) to us in connection with the vesting, settlement or exercise of restricted stock units, options, warrants or other rights to purchase shares of our common stock (including "net" or "cashless" exercise), including for the payment of exercise price and tax and remittance payments, or (xi) pursuant to a bona fide third-party tender offer, merger, consolidation or other similar transaction approved by our board of directors and made to all shareholders involving a change in control, provided that if such transaction is not completed, all such lock-up securities would remain subject to the restrictions in the immediately preceding paragraph; (b) exercise of the options, settlement of RSUs or other equity awards, or the exercise of warrants granted pursuant to plans described in in this prospectus, provided that any lock-up securities received upon such exercise, vesting or settlement would be subject to restrictions similar to those in the immediately preceding paragraph; (c) the conversion of outstanding preferred stock, warrants to acquire preferred stock, or convertible securities into shares of our common stock or warrants to acquire shares of our common stock, provided that any common stock or warrant received upon such conversion would be subject to restrictions similar to those in the immediately preceding paragraph.

J.P. Morgan Securities LLC and Morgan Stanley & Co. LLC, in their sole discretion, may release the securities subject to any of the lock-up agreements with the underwriters described above, in whole or in part at any time.

Record holders of our securities are typically the parties to the lock-up agreements with the underwriters and the market standoff agreements with us referred to above, while holders of beneficial interests in our shares who are not also record holders in respect of such shares are not typically subject to any such agreements or other similar restrictions. Accordingly, we believe that certain holders of beneficial interests who are not record holders and are not bound by market standoff or lock-up agreements could enter into transactions with respect to those beneficial interests that negatively impact our stock price. In addition, a shareholder who is neither subject to a market standoff agreement with us nor a lock-up agreement with the underwriters may be able to sell, short sell, transfer, hedge, pledge, lend or otherwise dispose of or attempt to sell short sell, transfer, hedge, pledge, lend or otherwise dispose of, their equity interests at any time after the closing of this offering.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933.

We intend to apply to have our common stock approved for listing on Nasdaq under the symbol "AKYA."

In connection with this offering, the underwriters may engage in stabilizing transactions, which involves making bids for, purchasing and selling shares of common stock in the open market for the purpose of preventing or retarding a decline in the market price of the common stock while this offering is in progress. These stabilizing transactions may include making short sales of common stock, which involves the sale by the underwriters of a greater number of shares of common stock than they are required to purchase in this offering, and purchasing shares of common stock on the open market to cover positions created by short sales. Short sales may be "covered" shorts, which are short positions in an amount not greater than the underwriters' option to purchase additional shares referred to above, or may be "naked" shorts, which are short positions in excess of that amount. The underwriters may close out any covered short position either by exercising their option to purchase additional shares, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the

price of shares available for purchase in the open market compared to the price at which the underwriters may purchase shares through the option to purchase additional shares. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market that could adversely affect investors who purchase in this offering. To the extent that the underwriters create a naked short position, they will purchase shares in the open market to cover the position.

The underwriters have advised us that, pursuant to Regulation M of the Securities Act of 1933, they may also engage in other activities that stabilize, maintain or otherwise affect the price of the common stock, including the imposition of penalty bids. This means that if the representatives of the underwriters purchase common stock in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters that sold those shares as part of this offering to repay the underwriting discount received by them.

These activities may have the effect of raising or maintaining the market price of the common stock or preventing or retarding a decline in the market price of the common stock, and, as a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on Nasdaq, in the over-the-counter market or otherwise.

Prior to this offering, there has been no public market for our common stock. The initial public offering price will be determined by negotiations between us and the representatives of the underwriters. In determining the initial public offering price, we and the representatives of the underwriters expect to consider a number of factors including:

- the information set forth in this prospectus and otherwise available to the representatives;
- our prospects and the history and prospects for the industry in which we compete;
- an assessment of our management;
- our prospects for future earnings;
- the general condition of the securities markets at the time of this offering;
- the recent market prices of, and demand for, publicly traded common stock of generally comparable companies; and
- other factors deemed relevant by the underwriters and us.

Neither we nor the underwriters can assure investors that an active trading market will develop for our common shares, or that the shares will trade in the public market at or above the initial public offering price.

Other Relationships

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services.

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

In particular, one of our directors, Thomas P. Schnettler, is a principal of Piper Sandler Merchant Banking Fund II, L.P., which is an affiliate of Piper Sandler & Co., an underwriter participating in this offering. See also “Certain Relationships and Related-Person Transactions — Director Affiliations” and “Certain Relationships and Related-Person Transactions — Agreements with our Stockholders.”

Selling Restrictions

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission in relation to the offering. This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act, and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the common shares may only be made to persons, or to the Exempt Investors, who are "sophisticated investors" (within the meaning of section 708(8) of the Corporations Act), "professional investors" (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the common shares without disclosure to investors under Chapter 6D of the Corporations Act.

The common shares applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring shares must observe such Australian on-sale restrictions.

This prospectus contains general information only and does not take into account the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this prospectus is appropriate for their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Bermuda

Shares may be offered or sold in Bermuda only in compliance with the provisions of the Investment Business Act of 2003 of Bermuda which regulates the sale of securities in Bermuda. Additionally, non-Bermudian persons (including companies) may not carry on or engage in any trade or business in Bermuda unless such persons are permitted to do so under applicable Bermuda legislation.

Canada

The shares may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the shares must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws. Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's

province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the representatives are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

China

This prospectus will not be circulated or distributed in the People's Republic of China, or PRC, and the shares will not be offered or sold to any person for re-offering or resale directly or indirectly to any residents of the PRC, except pursuant to any applicable laws and regulations of the PRC. Neither this prospectus nor any advertisement or other offering material may be distributed or published in the PRC, except under circumstances that will result in compliance with applicable laws and regulations.

Dubai International Financial Centre

This prospectus relates to an Exempt Offer in accordance with the Markets Rules 2012 of the Dubai Financial Services Authority, or the DFSA. This prospectus is intended for distribution only to persons of a type specified in the Markets Rules 2012 of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus nor taken steps to verify the information set forth herein and has no responsibility for this document. The securities to which this document relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the securities offered should conduct their own due diligence on the securities. If you do not understand the contents of this prospectus you should consult an authorized financial advisor.

In relation to its use in the Dubai International Financial Centre, or the DIFC, this prospectus is strictly private and confidential and is being distributed to a limited number of investors and must not be provided to any person other than the original recipient and may not be reproduced or used for any other purpose. The interests in the securities may not be offered or sold directly or indirectly to the public in the DIFC.

European Economic Area

In relation to each member state of the European Economic Area (each, a "Relevant State"), no securities have been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the securities which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that offers of the securities may be made to the public in that Relevant State at any time under the following exemptions under the Prospectus Regulation:

(a) to any legal entity which is a qualified investor as defined under the Prospectus Regulation;

(b) to fewer than 150 natural or legal persons (other than qualified investors as defined under the Prospectus Regulation), subject to obtaining the prior consent of the representative; or

(c) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of the securities shall require us or any representative to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an "offer to the public" in relation to the securities in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase or subscribe for any securities, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129.

Hong Kong

The shares may not be offered or sold by means of any document other than (i) in circumstances that do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong), or (ii) to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances that do not result in the document being a "prospectus" within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong), and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to shares that are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

Israel

In the State of Israel, this prospectus shall not be regarded as an offer to the public to purchase shares of our common stock under the Israeli Securities Law, 5728 — 1968, which requires a prospectus to be published and authorized by the Israel Securities Authority, if it complies with certain provisions of Section 15 of the Israeli Securities Law, 5728 — 1968, including, inter alia, if: (i) the offer is made, distributed or directed to not more than 35 investors, subject to certain conditions, or the Addressed Investors; or (ii) the offer is made, distributed or directed to certain qualified investors defined in the First Addendum of the Israeli Securities Law, 5728 — 1968, subject to certain conditions, or the Qualified Investors. The Qualified Investors shall not be taken into account in the count of the Addressed Investors and may be offered to purchase securities in addition to the 35 Addressed Investors. We have not and will not take any action that would require us to publish a prospectus in accordance with and subject to the Israeli Securities Law, 5728 — 1968. We have not and will not distribute this prospectus or make, distribute or direct an offer to subscribe for our common stock to any person within the State of Israel, other than to Qualified Investors and up to 35 Addressed Investors.

Japan

The securities have not been and will not be registered under the Financial Instruments and Exchange Law of Japan, or the Financial Instruments and Exchange Law, and each underwriter has agreed that it will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term, as used in this prospectus means any person resident in Japan, including any corporation or other entity organized under the laws of Japan) or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

Korea

The shares have not been and will not be registered under the Financial Investments Services and Capital Markets Act of Korea and the decrees and regulations thereunder, or the FSCMA, and the shares have been and will be offered in Korea as a private placement under the FSCMA. None of the shares may be offered, sold or delivered directly or indirectly, or offered or sold to any person for re-offering or resale, directly or indirectly, in Korea or to any resident of Korea except pursuant to the applicable laws and regulations of Korea, including the FSCMA and the Foreign Exchange Transaction Law of Korea and the decrees and regulations thereunder, or the FETL. The shares have not been listed on any of securities exchanges in the world including, without limitation, the Korea Exchange in Korea. Furthermore, the purchaser of the shares shall comply with all applicable regulatory requirements (including but not limited to requirements under the FETL) in connection with the purchase of the shares. By the purchase of the shares, the relevant holder thereof will be deemed to represent and warrant that if it is in Korea or is a resident of Korea, it purchased the shares pursuant to the applicable laws and regulations of Korea.

Saudi Arabia

This prospectus may not be distributed in the Kingdom of Saudi Arabia, except to such persons as are permitted under the Offers of Securities Regulations as issued by the board of the Saudi Arabian Capital Market Authority, or the CMA, pursuant to resolution number 2-11-2004 dated 4 October 2004 as amended by resolution number 1-28-2008, as amended, or the CMA Regulations. The CMA does not make any representation as to the accuracy or completeness of this prospectus and expressly disclaims any liability whatsoever for any loss arising from, or incurred in reliance upon, any part of this document. Prospective purchasers of the securities offered hereby should conduct their own due diligence on the accuracy of the information relating to the securities. If you do not understand the contents of this prospectus, you should consult an authorized financial adviser.

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of Non-CIS Securities may not be circulated or distributed, nor may the Non-CIS Securities be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the Non-CIS Securities are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor, securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the Non-CIS Securities pursuant to an offer made under Section 275 of the SFA except:

    (a) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

    (b) where no consideration is or will be given for the transfer;

    (c) where the transfer is by operation of law;

    (d) as specified in Section 276(7) of the SFA; or

    (e) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018 of Singapore.

Singapore Securities and Futures Act Product Classification: Solely for the purposes of our obligations pursuant to sections 309B(1)(a) and 309B(1)(c) of the SFA, we have determined, and hereby notify all relevant persons (as defined in Section 309A of the SFA), that the common shares are "prescribed capital markets products" (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

South Africa

Due to restrictions under the securities laws of South Africa, no "offer to the public" (as such term is defined in the South African Companies Act, No. 71 of 2008, or the South African Companies Act, (as amended or re-enacted)) is being made in South Africa in connection with the issue of the shares. Accordingly, this prospectus does not, nor is it intended to, constitute a "registered prospectus" (as that term is defined in the South African Companies Act) prepared and registered under the South African Companies Act and has not been approved by, and/or filed with, the South African Companies and Intellectual Property Commission or any other regulatory authority in South Africa. The shares are not offered, and the offer shall not be transferred, sold, renounced or delivered, in South Africa or to a person with an address in South Africa, unless one or other of the following exemptions stipulated in section 96 (1) applies:

Section 96(1)(a)	the offer, transfer, sale, renunciation or delivery is to: (i) persons whose ordinary business, or part of whose ordinary business, is to deal in securities, as principal or agent; (ii) the South African Public Investment Corporation; (iii) persons or entities regulated by the Reserve Bank of South Africa; (iv) authorized financial service providers under South African law; (v) financial institutions recognized as such under South African law; (vi) a wholly-owned subsidiary of any person or entity contemplated in (c), (d) or (e), acting as agent in the capacity of an authorized portfolio manager for a pension fund, or as manager for a collective investment scheme (in each case duly registered as such under South African law); or (vii) any combination of the person in (i) to (vi); or
Section 96(1)(b)	the total contemplated acquisition cost of the securities, for any single addressee acting as principal is equal to or greater than ZAR1,000,000 or such higher amount as may be promulgated by notice in the Government Gazette of South Africa pursuant to section 96(2)(a) of the South African Companies Act.

Information made available in this prospectus should not be considered as "advice" as defined in the South African Financial Advisory and Intermediary Services Act, 2002.

Switzerland

This prospectus is not intended to constitute an offer or solicitation to purchase or invest in our securities. The securities may not be publicly offered, directly or indirectly, in Switzerland within the meaning of the Swiss Financial Services Act ("FinSA"), and no application has or will be made to admit the securities to trading on any trading venue (exchange or multilateral trading facility) in Switzerland. Neither this prospectus nor any other offering or marketing material relating to the securities constitutes a prospectus pursuant to the FinSA, and neither this prospectus nor any other offering or marketing material relating to the securities may be publicly distributed or otherwise made publicly available in Switzerland.

Taiwan

The shares have not been and will not be registered with the Financial Supervisory Commission of Taiwan pursuant to relevant securities laws and regulations and may not be sold, issued or offered within Taiwan through a public offering or in circumstances which constitutes an offer within the meaning of the Securities and Exchange Act of Taiwan that requires a registration or approval of the Financial Supervisory Commission of Taiwan. No person or entity in Taiwan has been authorized to offer, sell, give advice regarding or otherwise intermediate the offering and sale of the shares in Taiwan.

United Arab Emirates

This prospectus relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority, or DFSA. This prospectus is intended for distribution only to persons

of a type specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus nor taken steps to verify the information set forth herein and has no responsibility for this prospectus. The shares to which this prospectus relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the shares offered should conduct their own due diligence on the shares. If you do not understand the contents of this prospectus, you should consult an authorized financial advisor.

United Kingdom

In relation to the United Kingdom, no shares of common stock have been offered or will be offered pursuant to this offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the shares that either (i) has been approved by the Financial Conduct Authority, or (ii) is to be treated as if it had been approved by the Financial Conduct Authority in accordance with the transitional provision in Regulation 74 of the Prospectus (Amendment etc.) (EU Exit) Regulations 2019, except that offers of shares may be made to the public in the United Kingdom at any time under the following exemptions under the UK Prospectus Regulation:

- to any legal entity which is a qualified investor as defined in Article 2 of the UK Prospectus Regulation;
- to fewer than 150 natural or legal persons (other than qualified investors as defined in Article 2 of the UK Prospectus Regulation); or
- in any other circumstances falling within section 86 of the Financial Services and Markets Act 2000 ("**FSMA**"),

provided that no such offer of shares shall require the Issuer or any representative to publish a prospectus pursuant to section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation.

For the purposes of this provision, the expression an "offer to the public" in relation to any shares in any relevant state means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares, and the expression "UK Prospectus Regulation" means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018.

We have not authorized and do not authorize the making of any offer of shares through any financial intermediary on their behalf, other than offers made by the underwriters with a view to the final placement of the shares as contemplated in this prospectus. Accordingly, no purchaser of the shares, other than the underwriters, is authorized to make any further offer of the shares on behalf of us or the underwriters.

In addition, in the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are "qualified investors" (as defined in Article 2 of the UK Prospectus Regulation) (i) who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "Order") and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons") or otherwise in circumstances which have not resulted and will not result in an offer to the public of the securities in the United Kingdom within the meaning of the FSMA.

Any person in the United Kingdom that is not a relevant person should not act or rely on the information included in this document or use it as basis for taking any action. In the United Kingdom, any investment or investment activity that this document relates to may be made or taken exclusively by relevant persons.

LEGAL MATTERS

DLA Piper LLP (US), San Diego, California will pass upon the validity of the shares of our common stock being offered by this prospectus. The validity of the shares of common stock offered by this prospectus will be passed upon for the underwriters by Davis Polk & Wardwell LLP, New York, New York.

EXPERTS

The consolidated financial statements of Akoya Biosciences, Inc. as of and for the years ended December 31, 2020 and 2019 have been audited by RSM US LLP, an independent registered public accounting firm, as stated in their report thereon and included in this Prospectus and Registration Statement in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of our common stock offered by this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement, some of which is contained in exhibits to the registration statement as permitted by the rules and regulations of the SEC. For further information with respect to us and our common stock, we refer you to the registration statement, including the exhibits filed as a part of the registration statement. Statements contained in this prospectus concerning the contents of any contract or any other document are not necessarily complete. If a contract or document has been filed as an exhibit to the registration statement, please see the copy of the contract or document that has been filed. Each statement in this prospectus relating to a contract or document filed as an exhibit is qualified in all respects by the filed exhibit. The SEC maintains a website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that website is www.sec.gov.

As a result of this offering, we will become subject to the information and reporting requirements of the Exchange Act and, in accordance with this law, will file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information will be available for inspection at the website of the SEC referred to above. We also maintain a website at www.akoyabio.com where, upon closing of this offering, you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. The information on or that can be accessed through our website is not a part of this prospectus and the inclusion of our website address in this prospectus is an inactive textual reference only.

AKOYA BIOSCIENCES, INC. AND SUBSIDIARY

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Akoya Biosciences, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Akoya Biosciences, Inc. and its subsidiary (the Company) as of December 31, 2020 and 2019, the related consolidated statements of operations, redeemable convertible preferred stock and stockholders' deficit and cash flows for the years then ended, and the related notes to the consolidated financial statements (collectively, the financial statements). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ RSM US LLP

We have served as the Company's auditor since 2019.

Boston, Massachusetts
March 12, 2021

AKOYA BIOSCIENCES, INC. AND SUBSIDIARY

CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share data)

	December 31, 2020	December 31, 2019
Assets		
Current assets		
Cash and cash equivalents	$ 17,006	$ 11,636
Certificates of deposit	—	10,023
Accounts receivable, net	6,470	13,167
Inventories, net	4,263	4,093
Prepaid expenses and other current assets	957	1,955
Total current assets	28,696	40,874
Property and equipment, net	5,528	4,983
Restricted cash – long term	502	501
Demo inventory, net	1,494	475
Intangible assets, net	22,714	24,137
Goodwill	18,262	18,262
Other assets	464	181
Total assets	$ 77,660	$ 89,413
Liabilities and stockholders' deficit		
Current liabilities		
Accounts payable	$ 5,074	$ 8,119
Accrued expenses and other current liabilities	7,015	8,581
Current portion of capital lease obligations	197	80
Deferred revenue	3,844	4,375
Current portion of long-term debt	1,032	—
Total current liabilities	17,162	21,155
Deferred revenue, net of current portion	1,008	905
Long-term debt, net of current portion and debt discount	33,488	24,466
Deferred tax liability, net	170	163
Capital lease obligations, net of current portion	277	205
Warrant liability	490	192
Contingent consideration liability (Note 5), net of current portion	6,984	8,139
Total liabilities	59,579	55,225
Redeemable Convertible Preferred Stock:		
Series B Redeemable Convertible Preferred Stock, $0.00001 par value; 13,715,330 shares authorized, issued and outstanding at December 31, 2020 and 2019 (preference in liquidation of $11,500 at December 31, 2020)	11,500	10,780
Series C Redeemable Convertible Preferred Stock, $0.00001 par value; 26,732,361 shares authorized, issued and outstanding at December 31, 2020 and 2019 (preference in liquidation of $30,107 at December 31, 2020)	30,107	28,067
Series D Redeemable Convertible Preferred Stock, $0.00001 par value; 16,758,996 shares authorized; 16,390,217 shares issued and outstanding at December 31, 2020 and 2019 (preference in liquidation of $27,500 at December 31, 2020)	27,500	25,500
Total redeemable convertible preferred stock	69,107	64,347
Stockholders' deficit:		
Series A Convertible Preferred Stock, $0.00001 par value; 5,013,333 shares authorized, issued and outstanding (preference in liquidation of $1,253) at December 31, 2020 and 2019	1,253	1,253
Class A Common Stock, $0.00001 par value; 62,220,020 shares authorized; 0 shares issued and outstanding at December 31, 2020 and 2019	—	—
Class B Common Stock, $0.00001 par value; 16,822,202 shares authorized; 5,973,605 and 5,328,423 issued and outstanding at December 31, 2020 and 2019, respectively	1	1
Additional paid in capital	—	—
Accumulated deficit	(52,280)	(31,413)
Total stockholders' deficit	(51,026)	(30,159)
Total liabilities, redeemable convertible preferred stock, and stockholders' deficit	$ 77,660	$ 89,413

See accompanying notes to consolidated financial statements.

AKOYA BIOSCIENCES, INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands except share & per share data)

	Year ended	
	December 31, 2020	December 31, 2019
Revenue:		
Product revenue	$ 33,438	$ 36,344
Service and other revenue	9,005	5,892
Total revenue	42,443	42,236
Cost of goods sold:		
Cost of product revenue	$ 12,584	$ 15,447
Cost of service and other revenue	3,951	2,126
Total cost of goods sold	$ 16,535	$ 17,573
Gross profit	$ 25,908	$ 24,663
Operating expenses:		
Selling, general and administrative	23,982	26,351
Research and development	9,603	8,761
Change in fair value of contingent consideration	519	(1,201)
Depreciation and amortization	3,815	3,055
Total operating expenses	37,919	36,966
Loss from operations	(12,011)	(12,303)
Other income (expense):		
Interest expense, net	(2,723)	(1,881)
Change in fair value of warrant liability	(298)	—
Loss on extinguishment of debt	(1,671)	—
Other income (expense), net	39	(373)
Loss before provision for income taxes	$ (16,664)	$ (14,557)
Provision for income taxes	(42)	(194)
Net loss	(16,706)	(14,751)
Net loss per share attributable to common stockholders, basic and diluted	$ (3.94)	$ (3.45)
Weighted-average shares outstanding, basic and diluted	5,523,458	5,303,199

See accompanying notes to consolidated financial statements.

AKOYA BIOSCIENCES, INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT
(in thousands, except share and per share data)

	Series B Redeemable Convertible Preferred Stock		Series C Redeemable Convertible Preferred Stock		Series D Redeemable Convertible Preferred Stock		Series A Convertible Preferred Stock		Class B Common Stock		Additional Paid in Capital	Accumulated Deficit	Total Stockholders' deficit
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Balance at December 31, 2018	13,715,330	$10,060	26,732,361	$26,027	—	—	5,013,333	$1,253	5,295,194	$ 1	—	$(13,383)	$(12,129)
Issuance of Series D Preferred Stock, net of issuance costs of $176	—	—	—	—	16,390,217	24,824	—	—	—	—	—	—	0
Accretion of redeemable convertible preferred stock to redemption value	—	—	—	—	—	176	—	—	—	—	—	(176)	(176)
Exercise of stock options	—	—	—	—	—	—	—	—	33,229	—	4	—	4
Accrued dividends	—	720	—	2,040	—	500	—	—	—	—	(157)	(3,103)	(3,260)
Net loss	—	—	—	—	—	—	—	—	—	—	—	(14,751)	(14,751)
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	153	—	153
Balance at December 31, 2019	**13,715,330**	**$10,780**	**26,732,361**	**$28,067**	**16,390,217**	**$25,500**	**5,013,333**	**$1,253**	**5,328,423**	**$ 1**	**$ —**	**$(31,413)**	**$(30,159)**
Exercise of stock options	—	—	—	—	—	—	—	—	645,182	—	122	—	122
Accrued dividends	—	720	—	2,040	—	2,000	—	—	—	—	(599)	(4,161)	(4,760)
Net loss	—	—	—	—	—	—	—	—	—	—	—	(16,706)	(16,706)
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	477	—	477
Balance at December 31, 2020	**13,715,330**	**$11,500**	**26,732,361**	**$30,107**	**16,390,217**	**$27,500**	**5,013,333**	**$1,253**	**5,973,605**	**$ 1**	**$ —**	**$(52,280)**	**$(51,026)**

See accompanying notes to consolidated financial statements.

AKOYA BIOSCIENCES INC., AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year ended	
	December 31, 2020	December 31, 2019
Operating activities		
Net loss	$(16,706)	$(14,751)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	3,815	3,055
Non-cash interest expense	316	74
Stock-based compensation expense	477	153
Paid-in-kind interest	366	115
Deferred tax liability	7	156
Change in fair value of contingent consideration	519	(1,201)
Change in fair value of warrant liability	298	—
Loss on extinguishment of debt	1,671	—
Changes in operating assets and liabilities:		
Accounts receivable, net	6,697	(3,373)
Prepaid expenses and other assets	56	(1,819)
Inventories, net	(684)	(4,007)
Accounts payable	(3,045)	(49)
Accrued expenses and other liabilities	(202)	4,643
Deferred revenue	(428)	3,228
Net cash used in operating activities	(6,843)	(13,776)
Investing activities		
Purchases of certificates of deposits	—	(10,000)
Maturity of certificates of deposits	10,168	—
Interest income reinvested in certificates of deposit	(145)	(23)
Purchases of property and equipment	(3,295)	(2,869)
Net cash provided by (used in) investing activities	6,728	(12,892)
Financing activities		
Proceeds from issuance of Series D preferred stock, net of issuance costs	—	24,824
Proceeds from stock option exercises	122	4
Principal payments on capital leases	(191)	(41)
Proceeds from debt	34,976	30,000
Principal payments of debt	(25,000)	(25,000)
Payments of debt issuance costs	(532)	(531)
Payments of debt extinguishment costs	(1,262)	—
Payments of contingent consideration	(2,627)	(695)
Net cash provided by financing activities	5,486	28,561
Net increase in cash, cash equivalents, and restricted cash	5,371	1,893
Cash, cash equivalents, and restricted cash at beginning of year	12,137	10,244
Cash, cash equivalents, and restricted cash at end of year	17,508	$ 12,137
Supplemental disclosures of cash flow information		
Cash paid for interest	$ 2,246	$ 1,790
Cash paid for income taxes	—	$ —
Supplemental disclosures of non-cash activities		
Purchases of property and equipment included in accounts payable and accrued expenses	$ 420	$ 937
Accretion of dividends on Series B, C, and D Preferred Stock	$ 4,760	$ 3,260
Accretion of redeemable convertible preferred stock to redemption value	$ —	$ 176
Warrants issued to lender	$ —	$ 192

See accompanying notes to consolidated financial statements.

AKOYA BIOSCIENCES INC., AND SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in thousands, except share and per share data)

(1) The company and basis of presentation

Description of business

Akoya Biosciences, Inc. ("Akoya" or the "Company") is a life sciences technology company, founded on November 13, 2015 as a Delaware corporation with operations based in Marlborough, Massachusetts and Menlo Park, California, delivering spatial biology solutions focused on transforming discovery and clinical research. Spatial biology refers to an evolving technology that enables academic and biopharma scientists to detect and map the distribution of cell types and biomarkers across whole tissue samples at single cell resolution, enabling advancements in their understanding of disease progression and patient response to therapy. Through Akoya's CODEX and Phenoptics platforms, reagents, software and services, the Company offers end-to-end solutions to perform tissue analysis and spatial phenotyping across the full continuum, from discovery through translational and clinical research.

On September 28, 2018, the Company acquired the commercial Phenoptics division of PerkinElmer, Inc. ("PKI") for multiplex immunofluorescence, with the aim of providing consumers with a full suite of end-to-end solutions for high parameter tissue analysis. The Phenoptics technology offers pathology solutions for cancer immunology and immunotherapy research, including advanced multiplex immunochemistry staining kits, multispectral imaging and whole side scanning instruments, and image analysis software. The Company's combined portfolio of complementary technologies aims to fuel groundbreaking advancements in cancer immunology, immunotherapy, neurology and a wide range of other applications. The Company sells into three main regions across the world: North America, Asia-Pacific ("APAC"), and Europe-Middle East-Africa ("EMEA").

Liquidity and going concern

At December 31, 2020, the Company has cash and cash equivalents of $17,006 and an accumulated deficit of $52,280. The future success of the Company is dependent on its ability to successfully commercialize its products, successfully launch future products, obtain additional capital and ultimately attain profitable operations. The Company has funded its operations primarily through its preferred stock issuances and debt financing arrangements.

The Company is subject to a number of risks similar to other newly commercial life sciences companies, including, but not limited to, development and market acceptance of the Company's product candidates, development by its competitors of new technological innovations, protection of proprietary technology, and raising additional capital.

After its acquisition of the Phenoptics division of PKI, the Company has incurred significant commercialization expenses related to product sales, marketing, manufacturing and distribution. The Company may seek to fund its operations through private equity or debt financings, as well as other sources. However, the Company may be unable to raise additional funds or enter into such other arrangements when needed, on favorable terms, or at all. The Company's failure to raise capital or enter into such other arrangements if and when needed would have a negative impact on the Company's business, results of operations, financial condition and the Company's ability to develop and commercialize existing and future products.

In October 2020, the Company entered into a new debt financing arrangement with Midcap Trust, providing for aggregate proceeds of $32,500. $5,000 is available to be drawn upon from March 31, 2021, through June 30, 2021.

The Company has incurred losses since its inception and has used cash from operations of $6,843 during the year ended December 31, 2020. However, we believe that our existing cash and cash equivalents, together with the $5,000 in existing availability under the financing arrangement with Midcap Trust, which is

available to be drawn between March 31, 2021 to June 30, 2021, will be adequate to satisfy our current operating plans for at least the next twelve months from the issuance of these financial statements.

The accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and satisfaction of liabilities in the ordinary course of business. The financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might result from the outcome of the uncertainties described above.

(2) Summary of significant accounting policies

Principles of consolidation

The Company's financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP"). Any reference in these notes to applicable guidance is meant to refer to the authoritative United States generally accepted accounting principles as found in the Accounting Standards Codification ("ASC") and Accounting Standards Updates ("ASU") of the Financial Accounting Standards Board ("FASB"). The Company's consolidated financial statements include the accounts of the Company and its wholly-owned subsidiary, Akoya Biosciences UK Ltd. ("Akoya UK"). All intercompany balances and transactions have been eliminated in consolidation.

Foreign currency remeasurement

Akoya UK's subsidiary's activities are recorded in British Pound Sterling and are remeasured using the United States Dollar as the functional currency. The balance sheet is remeasured into U.S. dollars at the exchange rate as of the balance sheet date. Revenues, expenses, and cash flows are remeasured at average rates during each reporting period. Net exchange gains and losses resulting from the remeasurement of the United Kingdom subsidiary balances are charged directly to operations and are included in other expense and were determined to be immaterial for the years ended December 31, 2020 and 2019.

Foreign exchange transaction gains and losses are included in other expense, net in the accompanying consolidated statements of operations and were determined to be immaterial for the years ended December 31, 2020 and 2019.

Use of estimates

The preparation of the Company's consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. The Company utilizes certain estimates in the determination of the fair value of its stock options and warrant, the useful lives of property and equipment, revenue recognition, determining the fair value of intangible assets, accrued expenses, income tax accounting, the value of purchase consideration paid and identifiable assets acquired and assumed in acquisitions, contingent consideration, goodwill and intangible asset impairment review, and other contingencies. The Company bases its estimates on historical experience and other market-specific or other relevant assumptions that it believes to be reasonable under the circumstances. Actual results could differ from such estimates.

Reclassifications

Certain prior year amounts have been reclassified in the consolidated statements of operations and the consolidated statements of cash flows to conform to the current year presentation. We have reclassified $536 from selling, general, and administrative to research and development costs in 2019 on the consolidated statements of operations. We have reclassified $695 from operating cash flows to financing cash flows on the consolidated statements of cash flows related to the payment made for contingent consideration in 2019. Such reclassifications did not have any impact on the results of operations or cash flows.

Segment information

Operating segments are defined as components of an enterprise about which separate discrete information is available for evaluation by the chief operating decision-maker in deciding how to allocate

resources and assess performance. The Company's chief operating decision-maker, the Company's chief executive officer, views the Company's operations and manages its business as a single operating segment.

Concentrations of credit risk

Cash and cash equivalents are financial instruments that potentially subject the Company to concentrations of credit risk. The Company maintains its cash deposits, which at times may exceed federally insured limits, with large financial institutions and, accordingly, the Company believes their cash and cash equivalents are subject to minimal credit risk.

Cash and cash equivalents and restricted cash

The Company considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents.

The Company records cash and cash equivalents as restricted when it is unable to freely use such cash and cash equivalents for general operating purposes. As of December 31, 2020 and 2019, restricted cash is recorded as long term and consists of a security deposit in a financial institution that is restricted from use as collateral for our letter of credit associated with our office and laboratory space in Marlborough, MA (Note 13), as well as cash restricted from use for the Company's corporate credit card program.

Accounts receivable

The Company's accounts receivable consists of amounts due from sales to commercial customers. At each reporting period, management reviews all outstanding balances to determine if the facts and circumstances of each customer relationship indicate the need for a reserve. The Company does not require collateral and had an allowance for doubtful accounts of $103 and $50 at December 31, 2020 and 2019, respectively.

Inventory

Inventories are stated at the lower of cost or net realizable value. The Company determines the cost of its inventories, which includes amounts related to materials, direct labor and manufacturing overhead, on a first-in, first-out basis. The Company performs an assessment of the recoverability of capitalized inventory during each reporting period and writes down any excess and obsolete inventories to their realizable value in the period in which the impairment is first identified. Shipping and handling costs incurred for inventory purchases are capitalized and recorded upon sale within the cost of goods sold in the consolidated statements of operations. Inventory is primarily raw materials as the Company utilizes contract manufacturers to produce the final products, which are typically drop-shipped directly to customers.

Fair value measurements

Certain assets and liabilities are reported on a recurring basis at fair value. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820, Fair Value Measurements ("ASC 820"), establishes a hierarchy of inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the observable inputs be used when available.

Observable inputs are inputs that market participants would use in pricing the asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the inputs that market participants would use in pricing the asset or liability and are developed based on the best information available in the circumstances. The hierarchy defines three levels of valuation inputs:

Level 1 — Quoted unadjusted prices for identical instruments in active markets.

Level 2 — Quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-derived valuations in which all observable inputs and significant value drivers are observable in active markets.

Level 3 — Model derived valuations in which one or more significant inputs or significant value drivers are unobservable, including assumptions developed by the Company.

The fair value hierarchy prioritizes valuation inputs based on the observable nature of those inputs. Assets and liabilities measured at fair value are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires management to make judgments and consider factors specific to the asset or liability (Note 5).

For certain financial instruments, including accounts receivable, prepaid expenses and other current assets, accounts payable, and accrued expenses, the carrying amounts approximate their fair values as of December 31, 2020 and 2019 because of their short-term nature. At December 31, 2020 and 2019, the carrying value of the Company's debt approximated fair value, which was determined using Level 3 inputs, using market quotes from brokers and is based on current rates offered for similar debt (Note 9).

Property and equipment

Property and equipment are recorded at cost and depreciated over their estimated useful lives using the straight-line method. Repairs and maintenance costs are expensed as incurred, whereas major improvements are capitalized as additions to property and equipment.

Demo inventory

Demo inventory is considered a hybrid between fixed asset and regular inventory as the Company occasionally sells the demo product to customers upon request. Potential customers and key opinion leaders use demo inventory in the field for a trial period and on occasion purchase the inventory within a few months of usage. Demo inventory that is not purchased by the potential customer or key opinion leader is returned to the Company. Demo inventory is recorded at cost and depreciated over their estimated useful lives using the straight-line method. Repairs and maintenance costs are expensed as incurred, whereas major improvements are capitalized as additions to demo inventory. Upon sale, Demo inventory, if and when sold, is recorded as product revenue and the remaining carrying value is booked through cost of goods sold.

Business combinations — intangible assets and contingent consideration

The Company bases the fair value of identifiable intangible assets acquired in a business combination on detailed valuations that use information and assumptions provided by management, which consider management's best estimates of inputs and assumptions that a market participant would use. The Company's intangible assets are amortized on a straight-line basis over their estimated useful lives ranging from 4 to 15 years.

Further, for those arrangements which arise from a business combination that involve potential future contingent consideration, the Company records on the date of acquisition a liability equal to the fair value of the estimated additional consideration the Company may be obligated to make in the future. The Company re-measures this liability each reporting period and records changes in the fair value through changes in fair value of contingent consideration within the Company's consolidated statements of operations. The Company records amounts currently due as it relates to contingent consideration within accrued expenses. Increases or decreases in the fair value of the contingent consideration liability can result from changes in discount rates, periods, timing and amount of projected revenue or timing or likelihood of achieving regulatory, revenue or commercialization-based milestones. The use of alternative valuation assumptions, including estimated revenue projections, growth rates, cash flows, discount rates, useful life or probability of achieving regulatory or revenue-based milestones could result in different purchase price allocations and recognized amortization expense and contingent consideration expense or benefit in current and future periods.

Impairment of long-lived assets and goodwill

The Company evaluates its long-lived assets, including demo inventory, for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If

indications of impairment exist, projected future undiscounted cash flows associated with the asset or asset group are compared to the carrying amount to determine whether the asset's value is recoverable. During this analysis, the Company reevaluates the significant assumptions used in determining the original cost and estimated lives of long-lived assets. Although the assumptions may vary from asset to asset, they generally include operating results, changes in the use of the asset, cash flows and other indicators of value. The Company then determines whether the remaining useful life continues to be appropriate or whether there has been an impairment of long-lived assets based primarily upon whether expected future undiscounted cash flows are sufficient to support the assets' recovery. If the carrying value of the asset exceeds such projected undiscounted cash flows, the asset will be written down to its estimated fair value.

The Company tests goodwill for impairment annually and tests intangible assets for impairment whenever events or changes in circumstances indicate that the carrying value of the asset may not be recoverable (i.e., upon occurrence of a triggering event). The Company performs its annual impairment review of goodwill at November 1 (and if and when triggering events occur between annual impairment tests). Upon completion of its quantitative assessment as of November 1, 2020, the Company has concluded that goodwill is not impaired. No events or changes in circumstances have indicated that the Company's intangible assets with useful lives are impaired as of December 31, 2020.

Debt issuance costs

Debt issuance costs represent fees paid to or on behalf of the Company's lenders to obtain debt financing. Debt issuance costs are recorded as a discount of the related debt. The costs are accreted over the term of the debt through interest expense using the straight line method which approximates the effective interest method.

Revenue recognition

The Company follows ASC 606, Revenue from Contracts with Customers ("ASC 606").

The Company generates revenue from the sale and installation of instruments, related warranty services, reagents and software (both company-owned and with third parties). Pursuant to ASC 606, revenue is recognized when a customer obtains control of promised goods or services. The amount of revenue recognized reflects the consideration the Company expects to be entitled to receive in exchange for these goods and services.

To determine the appropriate amount of revenue to be recognized for arrangements determined to be within the scope of Topic 606, the Company performs the following five steps: (i) identification of the customer contract; (ii) identification of the performance obligations; (iii) measurement of the transaction price, including the constraint on variable consideration; (iv) allocation of the transaction price to the performance obligations; and (v) recognition of revenue when (or as) the Company satisfies each performance obligation. The Company only applies the five-step model to contracts when it is probable that the Company will collect consideration it is entitled to in exchange for the goods or services it transfers to the customer.

The Company evaluates all promised goods and services within a customer contract and determines which of those are separate performance obligations. This evaluation includes an assessment of whether the good or service is capable of being distinct and whether the good or service is separable from other promises in the contract. Promised goods or services are considered distinct when (i) the customer can benefit from the good or service on its own or together with other readily available resources and (ii) the promised good or service is separately identifiable from other promises in the contract.

Most of the Company's contracts with customers contain multiple performance obligations (i.e., sale of an instrument and warranty services). For these contracts, the Company accounts for individual performance obligations separately if they are distinct (i.e. capable of being distinct and separable from other promises in the contract). The transaction price is allocated to the separate performance obligations on a relative standalone selling price basis. Excluded from the transaction price are sales tax and other similar taxes which are presented on a net basis.

Product Revenue

Product revenue is generated by the sale of instruments and consumable reagents predominantly through the Company's direct sales force in the United States and in geographic regions outside the United States such as APAC and EMEA. The Company does not offer product return or exchange rights (other than those relating to defective goods under warranty) or price protection allowances to its customers. When an instrument is purchased by a customer, the Company recognizes revenue when the related performance obligation is satisfied (i.e. when the control of an instrument has passed to the customer). Revenue from the sale of consumables is recognized upon shipment to the customer. The Company's perpetual software licenses generally have significant stand-alone functionality to the customer upon delivery and are considered to be functional intellectual property (IP). The Company's perpetual software licenses are considered distinct performance obligations, and revenue allocated to the software license is typically recognized upon provision of the license/software code to the customer (i.e., when the software is available for access and download by the customer).

Service and Other Revenue

Product sales of instruments include a service-based warranty typically for one year following the installation of the purchased instrument, with an extended warranty for an additional year sold in many cases. These are determined to comprise separate performance obligations as they are service-based warranties and are recognized on a straight-line basis over the service delivery period. After completion of the service period, customers have an option to renew or extend the warranty services, typically for additional one-year periods in exchange for additional consideration. The extended warranties are also service-based warranties that represent separate purchasing decisions. The Company recognizes revenue allocated to the extended warranty performance obligation on a straight-line basis over the service delivery period. Revenue from separately charged installation services is recognized upon completion of the installation process. Additionally, the Company provides laboratory services, in which revenue is recognized as services are performed. For laboratory services, we generally use the cost-to-cost approach to measure the extent of progress towards completion of the performance obligation because we believe it best depicts the transfer of assets to the customer. Under the cost-to-cost measure approach, the extent of progress towards completion is measured based on the ratio of costs incurred to date to the total estimated costs at completion of the performance obligation. Revenues are recorded proportionally as costs are incurred. The Company records shipping and handling billed to customers as service and other revenue and the related costs in cost of service and other revenue in the consolidated statements of operations.

Disaggregation of Revenue

The Company disaggregates revenue from contracts with customers by type of products, and between service and other revenue, as it best depicts how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors. The following table disaggregates the Company's revenue by major source:

	Year ended	
	December 31, 2020	**December 31, 2019**
Revenue		
Product revenue		
Instruments	$23,772	$26,470
Consumables	8,535	8,167
Standalone software products	1,131	1,707
Total product revenue	$33,438	$36,344
Service and other revenue	$ 9,005	$ 5,892
Total revenue	$42,443	$42,236

Significant Judgments

The Company's contracts with customers often include promises to transfer multiple products and services to a customer. Determining whether products and services are considered distinct performance

obligations that should be accounted for separately versus together requires significant judgment. Once the Company determines the performance obligations, the Company determines the transaction price, which includes estimating the amount of variable consideration, based on the most likely amount, to be included in the transaction price, if any. The Company then allocates the transaction price to each performance obligation in the contract based on a relative standalone selling price method. The corresponding revenue is recognized as the related performance obligations are satisfied as discussed in the revenue categories above.

Judgment is required to determine the standalone selling price for each distinct performance obligation. The Company determines standalone selling price based on the price at which the performance obligation in the contract (i.e. instrument, service warranty, installation) would be sold separately. As the first-year warranty for each instrument is embedded in the instrument price, the amount allocated to the first-year warranty has been determined based on the separately identifiable price of the Company's extended warranty offering when it is sold on a renewal basis.

If the standalone selling price is not observable through past transactions, the Company estimates the standalone selling price taking into account available information such as market conditions and the expected costs and margin related to the performance obligations. Contracts in which only one performance obligation is identified (i.e., consumables and standalone software products) do not require allocation of the transaction price.

Contract Assets and Liabilities

The Company did not record any contract assets at December 31, 2020 or 2019.

The Company's contract liabilities consist of upfront payments for service-based warranties on instrument sales. The Company classifies these contract liabilities in deferred revenue as current or noncurrent based on the timing of when the Company expects to service the warranty.

Cost to Obtain and Fulfill a Contract

Under ASC 606, the Company is required to capitalize certain costs to obtain customer contracts and costs to fulfill customer contracts. These costs are required to be amortized to expense on a systemic basis that is consistent with the transfer to the customer of the goods or services to which the asset relates, compared to previously being expensed as incurred. As a practical expedient, the Company recognizes any incremental costs to obtain a contract as an expense when incurred if the amortization period of the asset is one year or less. Capitalizable costs to obtain contracts, such as commissions, and costs to fulfill customer contracts were determined to be immaterial for the years ended December 31, 2020 and 2019.

Cost of goods sold

Cost of product revenue includes the cost of materials, direct labor, and manufacturing overhead costs used in the manufacture of products sold to customers.

Cost of service and other revenue consists of personnel, facility costs associated with operating our laboratory testing on behalf of the customers, costs related to instrument maintenance, servicing equipment, training customers at customer sites, freight, other direct costs, and overhead.

Redeemable convertible preferred stock

The Company has classified redeemable convertible preferred stock as temporary equity on the accompanying consolidated balance sheets because it becomes redeemable due to the passage of time or could become redeemable due to certain change in control clauses that are outside of the Company's control. The redeemable convertible preferred stock is adjusted to the redemption value over time through the date of the earliest redemption date. These increases are recorded as charges against retained earnings, if any, and then to additional paid-in capital. Then, in the absence of additional paid-in capital, the accretion is charged to the accumulated deficit.

Research and development costs

Costs incurred in the research and development of the Company's product candidates are expensed as incurred. Research and development expenses consist of costs incurred in performing research and development activities, including activities associated with performing services under research revenue arrangements, costs associated with the manufacture of developing products and include salaries and benefits, stock compensation, research related facility and overhead costs, laboratory supplies, equipment and contract services.

Capitalized software development costs

Since the Company sells standalone licensed software products to its customers, the Company applies the software revenue recognition guidance related to accounting for the costs of such software to be sold, leased or otherwise marketed in accordance with ASC 985-20, *Costs of Software to be Sold, Leased, or Marketed*, or ASC 985-20. Such guidance requires capitalization of certain software development costs subsequent to the establishment of technological feasibility. The Company has determined that costs eligible for capitalization under ASC 985-20 during the years ended December 31, 2020 and 2019 were immaterial.

We account for costs to develop or obtain internal-use software in accordance with ASC 350-40, *Internal-Use Software*, or ASC 350-40. We also account for costs of significant upgrades and enhancements resulting in additional functionality under ASC 350-40. These costs are primarily development costs related to our cloud-based Proxima software which will be accessed by customers on a subscription basis. Proxima is an open solution designed to meet both requirements by enabling the storage, sharing, analysis, and visualization of spatial phenotyping images and experimental results generated on our platforms. The Company expects to commercialize Proxima in 2021, and thus has not started amortizing the associated capitalized intangible asset as of December 31, 2020, and has not recognized revenues for the period ended December 31, 2020. Costs incurred for maintenance, training, and minor modifications or enhancements are expensed as incurred. Internal-use software is amortized on a straight-line basis over its estimated useful life. Management evaluates the useful lives of these assets on an annual basis and tests for impairment whenever events or changes in circumstances occur that could impact the recoverability of these assets. Development costs related to internal-use software were $659 in 2020 and recorded as an intangible asset on our December 31, 2020 consolidated balance sheet. We estimated the useful life of such asset to be five years. The Company determined costs eligible for capitalization under ASC 350-40 during the year ended December 31, 2019 were immaterial.

Advertising expenses

The cost of advertising, marketing and media is expensed as incurred. For the year ended December 31, 2020 and 2019, advertising costs totaled $0.8 million and $0.9 million, respectively.

Comprehensive loss

Comprehensive loss is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. Comprehensive loss consists of net loss and other comprehensive loss, which includes certain changes in equity that are excluded from net loss. The Company's comprehensive loss equals reported net loss for all periods presented.

Deferred offering costs

The Company capitalizes certain legal, professional accounting and other third party fees that are directly associated with in-process equity financings as deferred offering costs until such financings are consummated. After consummation these costs are recorded in stockholders' equity (deficit) as a reduction of additional paid in capital generated as a result of the offering. Should the in-process equity financing be abandoned, the deferred offering costs will be expensed as a charge to operating expenses. As of December 31, 2020, $269 of deferred offering costs were included in other assets in the accompanying consolidated balance sheets. There were no deferred offering costs at December 31, 2019.

Stock-based compensation

The Company records stock-based compensation for options granted to employees and to members of the board of directors for their services on the board of directors based on the grant date fair value of awards issued, and the expense is recorded on a straight-line basis over the requisite service period, which is generally four years. The Company accounts for non-employee stock-based compensation arrangements based on the fair value of the consideration received or the equity instruments issued, whichever is more reliably measurable. The measurement date for non-employee awards is generally the date that the performance of services required for the non-employee award is complete. In accordance with authoritative guidance, the fair value of non-employee stock-based awards is estimated on the date of grant, and subsequently revalued at each reporting period over their vesting period using the Black-Scholes option-pricing model.

The Company uses the Black-Scholes-Merton option pricing model to determine the fair value of stock options. The use of the Black-Scholes-Merton option-pricing model requires management to make assumptions with respect to the expected term of the option, the expected volatility of the common stock consistent with the expected life of the option, risk-free interest rates and expected dividend yields of the common stock. The expected term was determined according to the simplified method, which is the average of the vesting tranche dates and the contractual term. Due to the lack of company-specific historical and implied volatility, the Company bases its estimate of expected volatility on the historical volatility of a group of similar companies that are publicly traded. For these analyses, companies with comparable characteristics are selected, including enterprise value and position within the industry, and with historical price information sufficient to meet the expected life of the stock-based awards. The Company computes the historical volatility data using the daily closing prices for the selected companies' shares during the equivalent period of the calculated expected term of its stock-based awards. The risk-free interest rate is determined by reference to the U.S. Treasury zero-coupon issues with remaining maturities similar to the expected term of the options. The Company has not paid, and does not anticipate paying, cash dividends on shares of common stock; therefore, the expected dividend yield is assumed to be zero. The Company has elected to account for forfeitures as they occur; any compensation cost previously recognized for an award that is forfeited because of a failure to satisfy a service or performance condition will be reversed in the period of the forfeiture. Refer to Note 11 for further details on the Company's stock-based compensation plan.

Warrant to purchase redeemable convertible preferred stock

The Company reviews the terms of all warrants issued in connection with the applicable accounting guidance and classifies warrants as a long-term liability on the consolidated balance sheets if the warrant may conditionally obligate the Company to transfer assets, including repurchase of the issuers' shares, at some point in the future. Warrants to purchase shares of redeemable convertible preferred stock meet these criteria and therefore require liability-classification.

Liability-classified warrants are subject to re-measurement at each balance sheet date, and any change in fair value is recognized as a component of other income (expense) in the consolidated statements of operations. The Company estimates the fair value of these warrants at issuance and each financial reporting date thereafter using the valuation model as discussed in Note 5.

Income taxes

The Company provides for income taxes using the liability method. The Company provides deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the Company's financial statement carrying amounts and the tax basis of assets and liabilities using enacted tax rates expected to be in effect in the years in which the differences are expected to reverse. Deferred tax assets and liabilities are recorded net as long term. A valuation allowance is provided to reduce the deferred tax assets to the amount that will more likely than not be realized.

The Company applies ASC 740 Income Taxes ("ASC 740") in accounting for uncertainty in income taxes. The Company has identified an uncertain tax position, however this uncertain tax position has not created a liability for the years ending December 31, 2020 and 2019 as the reserve has been applied against the asset. The Company will recognize interest and penalties related to uncertain tax positions, if any, in income tax expense.

Commitments and contingencies

Indemnification obligations

The Company has entered into indemnification agreements with its officers and directors that require the Company to indemnify such individuals for certain events or occurrences while each such officer or director is, or was, serving at the Company's request in such capacity. The maximum potential amount of future payments the Company could be required to make is, in many cases, unlimited. The Company has directors' and officers' liability insurance coverage that limits its exposure and enables the Company to recover a portion of any future amounts paid.

The Company leases office and laboratory space under operating leases. The Company has standard indemnification arrangements under the leases that require it to indemnify the landlords against all costs, expenses, fines, suits, claims, demands, liabilities, and actions directly resulting from any breach, violation or nonperformance of any covenant or condition of the Company's leases.

In the ordinary course of business, the Company enters into indemnification agreements with certain suppliers and business partners where the Company has certain indemnification obligations limited to the costs, expenses, fines, suits, claims, demands, liabilities and actions directly resulting from the Company's gross negligence or willful misconduct, and in certain instances, breaches, violations or nonperformance of covenants or conditions under the agreements.

As of December 31, 2020 and 2019, the Company had not experienced any material losses related to these indemnification obligations, and no material claims with respect thereto were outstanding. The Company does not expect significant claims related to these indemnification obligations and, consequently, concluded that the fair value of these obligations is negligible, and no related reserves were established.

The Company is subject to the possibility of loss contingencies arising in the ordinary course of business. Management considers the likelihood of loss related to an asset, or the incurrence of a liability, as well as its ability to reasonably estimate the amount of the loss, in determining loss contingencies. An estimated loss contingency is accrued when it is probable that an asset has been impaired, or a liability has been incurred and the amount of loss can be reasonably estimated. The Company regularly evaluates current information available to determine whether such accruals should be adjusted and whether new accruals are required. Refer to Note 13 for the details of the Company's contingencies.

Legal proceedings

From time to time, the Company may become involved in litigation relating to claims arising from the ordinary course of business. Management believes that there are no claims or actions pending against the Company currently, the ultimate disposition of which would have a material adverse effect on the Company's consolidated results of operation, financial condition or cash flows.

Net loss per share attributable to common stockholders

Basic and diluted net loss per common share outstanding is determined by dividing net loss, as adjusted for accretion and accrued dividends on redeemable convertible preferred stock, by the weighted average common shares outstanding during the period. Diluted net loss per share reflects the potential dilution that would occur if securities or other contracts to issue common stock were exercised or converted into common stock; however, potential common equivalent shares are excluded if their effect is anti-dilutive. In computing diluted net loss per share, the Company utilizes the treasury stock method.

The Company applies the two-class method to compute basic and diluted net loss or income per share when it has issued shares that meet the definition of participating securities. The two-class method determines net (loss) or income per share for each class of common and participating securities according to dividends declared or accumulated and participation rights in undistributed earnings. The two-class method requires net (loss) income available to common stockholders for the period to be allocated between common and participating securities based upon their respective rights to share in the earnings as if all net (loss) income for the period had been distributed. The Company's convertible preferred stock participates in any dividends declared by the Company and are therefore considered to be participating securities. The participating

securities are not required to participate in the losses of the Company, and therefore during periods of loss there is no allocation required under the two-class method.

Recent Accounting Standards

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies and adopted by the Company as of the specified effective date. The Company is considered to be an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, as amended (Jobs Act). The Jobs Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to avail ourselves of this extended transition period and, as a result, we will not be required to adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

Recently adopted accounting standards

In June 2018, the FASB issued ASU No. 2018-07, Compensation-Stock Compensation: Improvements to Nonemployee Share-Based Payment Accounting ("ASU 2018-07"). This guidance simplifies the accounting for share-based payments to nonemployees by aligning it with the accounting for share-based payments to employees, with certain exceptions. This standard is effective for the Company for fiscal years beginning after December 15, 2019, and early adoption is permitted. The Company adopted ASU 2018-07 effective as of January 1, 2020 and the impact of adoption was determined to be immaterial.

In August 2018, the FASB issued ASU No. 2018-13, Fair Value Measurement ("ASU 2018-13"), which eliminates, adds and modifies certain disclosure requirements for fair value measurements. The amendment is effective for interim and annual reporting periods beginning after December 15, 2019. The Company adopted ASU 2018-13 effective as of January 1, 2020 and the impact of adoption was determined to be immaterial.

Recently issued but not yet adopted accounting standards

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842) in order to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet for those leases classified as operating leases under previous generally accepted accounting principles. ASU 2016-02 requires a lessee to recognize a liability to make lease payments (the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term on the balance sheet. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018 (including interim periods within those periods) and early adoption is permitted. In August 2018, the FASB issued ASU 2018-11, Targeted Improvements to ASC 842, which provides a new transition option in which an entity initially applies ASU 2016-02 at the adoption date and recognizes a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. In June 2020, the FASB issued an extension in the effective date for all non-public companies. This extended the effective date to annual periods beginning after December 15, 2021 (i.e. calendar year periods beginning on January 1, 2022) and interim periods within fiscal years beginning after December 15, 2022. Early adoption is permitted. Prior period comparative balances will not be adjusted. The Company expects to use the new transition option and will expect to be also utilizing the package of practical expedients that allows it to not reassess: (1) whether any expired or existing contracts are or contain leases, (2) lease classification for any expired or existing leases, and (3) initial direct costs for any existing leases. The Company expects to use the short-term lease exception for leases with a term of twelve months or less. Additionally, the Company expects to use the practical expedient that allows it to treat each separate lease component of a contract and its associated non-lease components as a single lease component. The Company has not yet adopted ASU 2016-02 and is continuing to evaluate the impact of adoption on these consolidated financial statements.

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments — Credit Losses (Topic 326) — Measurement of Credit Losses on Financial Instruments, which has been subsequently amended by ASU No. 2018-19, ASU No. 2019-04, ASU No. 2019-05, ASU No. 2019-10, ASU No. 2019-11 and ASU No. 2020-03 ("ASU 2016-13"). The provisions of ASU 2016-13 modify the impairment model

to utilize an expected loss methodology in place of the currently used incurred loss methodology and require a consideration of a broader range of reasonable and supportable information to inform credit loss estimates. ASU 2016-13 is effective for the Company on January 1, 2023, with early adoption permitted. The Company is currently evaluating the potential impact that ASU 2016-13 may have on its consolidated financial statements and related disclosures.

In January 2017, the FASB issued ASU No. 2017-04, Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment, which simplifies the subsequent measurement of goodwill by eliminating Step 2 from the goodwill impairment test. Instead of determining a hypothetical purchase price allocation to measure goodwill impairment, the Company will compare the fair value of a reporting unit with its carrying amount. The update also includes a new requirement to disclose the amount of goodwill allocated to reporting units with zero or negative carrying amounts. This standard is effective for the Company for fiscal years beginning after December 15, 2021, and early adoption is permitted. The Company is in the process of evaluating the impact, if any, that this new guidance will have on the Company's consolidated financial statements.

(3) Significant risks and uncertainties including business and credit concentrations

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash equivalents and receivables. The Company's cash equivalents are held by large, credit worthy financial institutions. The Company invests its excess cash in certificates of deposits. The Company has established guidelines relative to credit ratings, diversification and maturities that seek to maintain safety and liquidity. Deposits in these banks may exceed the amounts of insurance provided on such deposits. To date, the Company has not experienced any losses on its deposits of cash and cash equivalents.

The Company controls credit risk through credit approvals, credit limits, and monitoring procedures. The Company performs periodic credit evaluations of its customers and generally does not require collateral. Accounts receivable are recorded net of an allowance for doubtful accounts. The allowance for doubtful accounts is based on management's assessment of the collectability of specific customer accounts and the aging of the related invoices and represents the Company's best estimate of probable credit losses in its existing accounts receivable. In 2019, PKI served as our distributor for Europe and parts of APAC, and thus represented a significant concentration of revenue and accounts receivable.

For the year ended December 31, 2020, no customers accounted for more than 10% of revenue. For the year ended December 31, 2019, PKI accounted for 30% of revenue. No customers accounted for greater than 10% of accounts receivable at December 31, 2020. PKI comprised 21% of accounts receivable at December 31, 2019.

(4) Business Acquisitions

On September 28, 2018, the Company acquired substantially all the assets of the Quantitative Pathology Solutions ("QPS") division of PKI. As part of the acquisition, on September 28, 2018, the Company entered into a Transition Services Agreement and a License Agreement (the "Ancillary Agreements") with PKI. Under the terms of the License Agreement, the Company agreed to pay PKI certain royalties as a percentage of future sales of products from the QPS division, in exchange for a perpetual license of the right to produce and sell QPS products. This contingent consideration is subject to remeasurement and as of December 31, 2020 and 2019, the Company estimated the total fair value of future potential royalty payments under the License Agreement to be $8,574 and $10,682, respectively, using a Discounted Cash Flow Analysis under the Income Approach based on the Company's future projected revenues (see Note 5), of which $6,984 and $8,139, respectively was recorded as Contingent Consideration Liability and $1,590 and $2,543 was recorded in Accrued Liabilities, respectively.

The Company recognized as of the acquisition date $1.9 million in fixed assets, $2.1 million in other current liabilities, $26.7 million in intangible assets, and $18.3 million in goodwill. The goodwill balance recognized as of the acquisition date was measured as the excess of the purchase price over the fair value of acquired net assets. Identifiable definite-lived intangible assets, such as developed technology, trade names, non-compete agreements and customer relationships acquired as part of this acquisition had a weighted average amortization period of 13 years (see Note 7). The Company determined the estimated fair

values of the identifiable intangible assets acquired after review and consideration of relevant information including discounted cash flow analyses, comparable market data, and the Company's estimates and projections.

(5) Fair value of financial instruments

The Company measures the following financial liabilities at fair value on a recurring basis. There were no transfers between levels of the fair value hierarchy during any of the periods presented. The following tables set forth the Company's financial assets and liabilities carried at fair value categorized using the lowest level of input applicable to each financial instrument as of December 31, 2020 and 2019:

	Balance at December 31, 2020	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Liabilities:				
Warrant liability	$ 490	$—	$—	$ 490
Contingent consideration – Long term portion	$6,984	$—	$—	$6,984
	$7,474	$—	$—	$7,474

	Balance at December 31, 2019	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Liabilities:				
Warrant liability	$ 192	$—	$—	$ 192
Contingent consideration – Long term portion	$8,139	$—	$—	$8,139
	$8,331	$—	$—	$8,331

The Company's recurring fair value measurements using Level 3 inputs relate to the Company's contingent consideration liability and warrant liability. In those circumstances where an acquisition involves a contingent consideration arrangement, the Company recognizes a liability equal to the fair value of the contingent payments the Company expects to make as of the acquisition date. The Company re-measures this liability each reporting period and records changes in the fair value through changes in fair value of Contingent consideration on the Company's consolidated statements of operations. Increases or decreases in the fair value of the contingent consideration liability can result from changes in discount rates, periods, timing and amount of projected revenue.

The Company uses the Black-Scholes option pricing model to value the warrant liability for the Series D Preferred Stock warrant. The Black Scholes option pricing model is based on the estimated market value of the underlying redeemable convertible preferred stock at the valuation measurement date, the remaining contractual term of the warrant, risk-free interest rates, expected dividends, and expected volatility of the price of the underlying redeemable convertible preferred stock.

Changes in the fair value of the Company's long-term portion of the contingent consideration liability during the years ended December 31, 2020 and 2019 were as follows:

Balance as of December 31, 2018	$11,883
Reclassification of Q4 2019 payment to accrued expenses	(2,543)
Change in contingent consideration value	(1,201)
Balance as of December 31, 2019	$ 8,139
Contingent consideration paid	(171)
Reclassification of Q4 2020 payment to accrued expenses	(1,590)
Change in contingent consideration value	606
Balance as of December 31, 2020	$ 6,984

The difference between the amount paid in 2020 and the amount included in accrued expenses at December 31, 2019 is $87 and is included in the change in fair value of contingent consideration in our 2020 consolidated statement of operations.

The recurring Level 3 fair value measurements of the Company's contingent consideration liability include the following significant unobservable inputs:

Contingent Consideration Liability	Fair Value as of December 31, 2020	Valuation Technique	Unobservable Inputs
Revenue-based Payments	$6,984	Discounted Cash FlowAnalysis under the Income Approach	Revenue discount factor, discount rate

Changes in the fair value of the Company's warrant liability during the years ended December 31, 2020 and 2019 were as follows:

Balance as of December 31, 2018	$ —
Issuance of warrant liability	192
Balance as of December 31, 2019	$192
Change in fair value of warrant liability	298
Balance as of December 31, 2020	$490

The recurring Level 3 fair value measurements of the Company's warrant liability include the following significant unobservable inputs:

Warrant Liability	Fair Value as of December 31, 2020	Valuation Technique	Unobservable Inputs
Warrant to purchase 368,780 shares of Series D Preferred Stock	$490	Black Scholes option pricing model	Expected volatility, term, risk-free rate

(6) Property and equipment, net

Property and equipment consists of the following:

	Estimated Useful Life (Years)	December 31, 2020	December 31, 2019
Furniture and fixtures	7	$ 358	$ 343
Computers, laptop and peripherals	5	2,367	1,767
Laboratory equipment	5	3,806	2,661
Leasehold improvements	Shorter of the lease life or 7	1,261	1,078
Total property and equipment		7,792	5,849
Less: Accumulated depreciation		(2,264)	(866)
Property and equipment, net		$ 5,528	$4,983

Depreciation expense of $1,398 and $655 relating to property and equipment was charged to operations for the years ended December 31, 2020 and 2019, respectively.

Demo inventory consists of the following:

	Estimated Life (Years)	December 2020	December 2019
Demo inventory – gross	3	$2,010	$ 694
Less: Accumulated depreciation		(516)	(219)
Demo inventory, net		$1,494	$ 475

Depreciation expense of $335 and $317 relating to demo equipment was charged to operations for the years ended December 31, 2020 and 2019, respectively.

(7) Intangible assets and goodwill

Intangible assets as of December 31, 2020 are summarized as follows:

	Cost	Accumulated Amortization	Net	Useful Life (in years)
Customer relationships	$11,800	(1,774)	10,026	15
Developed technology	$ 8,300	(1,560)	6,740	12
Licenses	$ 63	(20)	43	15
Trade names and trademarks	$ 6,300	(1,184)	5,116	12
Capitalized software	$ 659	—	659	5
Non-compete agreements	$ 300	(170)	130	4
Total intangible assets	$27,422	(4,708)	22,714	

Intangible assets as of December 31, 2019 are summarized as follows:

	Cost	Accumulated Amortization	Net	Useful Life (in years)
Customer relationships	$11,800	$ (989)	$10,811	15
Developed technology	$ 8,300	(868)	7,432	12
Licenses	$ 63	(16)	47	15
Trade names and trademarks	$ 6,300	(659)	5,641	12
Non-compete agreements	$ 300	(94)	206	4
Total intangible assets	$26,763	$(2,626)	$24,137	

Total amortization expense was $2,082 for the years ended December 31, 2020 and 2019, respectively.

In November 2015, the Company entered into a license agreement with Stanford University ("Stanford"), pursuant to which Stanford granted the Company an exclusive, worldwide, sublicensable license under certain patent rights to make, use, import and commercialize products for diagnostic, industrial and research and development purposes. In accordance with the agreement, the Company capitalized non-refundable royalties paid to Stanford totaling $63, subject to straight-line amortization over a period of 15 years, or the term of the related agreement.

As of December 31, 2020, the amortization expense related to identifiable intangible assets in future periods is expected to be as follows:

2021	2,215
2022	2,195
2023	2,140
2024	2,140
2025	2,139
Thereafter	11,885
Total	$22,714

As of December 31, 2020 and 2019, the goodwill balance is $18,262.

(8) Accrued expenses and other current liabilities

Accrued expenses and other current liabilities consist of the following:

	December 31, 2020	December 31, 2019
Accrued payroll and compensation	$2,225	$2,991
Current portion of contingent consideration	1,590	2,543
Accrued inventory purchases	478	681
Other accrued expenses	2,722	2,366
Total accrued expenses and other current liabilities	$7,015	$8,581

(9) Debt and capital lease obligations

Term Loan Agreements

In September 2018, the Company entered into a term loan agreement with Pacific Western Bank that provided for an advance of $20,000 (the "PacWest Term Loan") to the Company on the closing date. The Company utilized the PacWest Term Loan proceeds for the acquisition of certain assets of the QPS business of PKI (Note 4). The PacWest Term Loan Agreement additionally provided the Company with the option to request a second term loan advance of up to $5,000 (the "Undrawn Commitment") at any point during the

period commencing on the closing date and ending on the PacWest Term Loan maturity date, and during 2019, the Company drew down on the additional $5,000.

Amounts borrowed under the PacWest Term Loan Agreement had an initial maturity of nine months from September 21, 2018 and accrued interest at a variable annual rate equal to the prime rate. The PacWest Term Loan Agreement was repaid in 2019.

In September 2019, the Company entered into a Loan and Security Agreement with Innovatus Life Sciences Lending Fund I, LP (the "Lender"), under which the Lender agreed to make a term loan to the Company in an aggregate principal amount of $25,000 (the "Innovatus Term Loan"). Amounts borrowed under the Loan and Security Agreement have an initial maturity date of September 1, 2024 and accrue interest at a floating annual rate equal to the sum of (a) the greater of 5.25% or the prime rate and (b) 3.75%, which was 9% at December 31, 2019. For each of the first 24 months, the Company will be paying 7.25% as cash interest and deferring 1.75% of interest until October 1, 2022. Deferred interest is $115 as of December 31, 2019. Principal payments (including the amortization of the accrued interest) of $1,079 per month commence on October 1, 2022. The Company utilized the Innovatus Term Loan proceeds to pay off the outstanding balance of the PacWest Term Loan in full on September 27, 2019. A final payment fee of $750 is due upon the earlier to occur of the maturity date or prepayment of such borrowings. For the years ended December 31, 2020 and 2019, the Company recorded $123 and $38, respectively, related to the amortization of the final payment fee associated with the Innovatus Term Loan.

In October 2020, the Company entered into a new debt financing arrangement with Midcap Trust (the "Term Loan"), for a $37,500 credit facility, consisting of a senior, secured term loan to refinance all existing indebtedness with Innovatus. The Company received $32,500 in aggregate proceeds as a result of the debt financing, and the remaining $5,000 is available to be drawn from March 31, 2021, through June 30, 2021. In connection with its entry into the Term Loan, in October 2020, the Company paid off the full balance of the Innovatus Term Loan of $26,882, including the principal, accrued interest, prepayment fee, and final fee. The Company recognized $1,671 as loss on extinguishment which was comprised of $589 related to the final payment fee, not yet accrued as of the extinguishment date, a pre-payment fee of $509, legal and other fees of $6, and the remaining unamortized debt discount of $567.

The term of the Term Loan is interest only for 36 months followed by 24-months of straight-line amortization. Interest on the outstanding balance of the Term Loan shall be payable monthly in arrears at an annual rate of one-month LIBOR plus 6.35%, subject to a LIBOR floor of 1.50%. The interest rate was 7.85% at December 31, 2020. At the time of final payment under the Term Loan, the Company is required to pay Midcap a final payment fee of 5.00% of the amount borrowed under the Term Loan. If the Term Loan is prepaid prior to the end of the Term, the Company shall pay to Midcap a fee as compensation for the costs of being prepared to make funds available in an amount determined by multiplying the amount being prepaid by (i) three percent (3.00%) in the first year, two percent, (2.00%) in the second year and one percent (1.00%) in the third year and thereafter. A final payment fee of $1,625 is due upon the earlier to occur of the maturity date or prepayment of such borrowings. For the year ended December 31, 2020, the Company recorded $59 related to the amortization of the final payment fee associated with the Term Loan.

Paycheck Protection Program Loan

In April 2020, the Company received a $2,476 small business loan under the Payroll Protection Program, part of the Coronavirus Aid, Relief and Economic Security Act ("CARES ACT"). In December 2020, we applied for forgiveness of the full loan amount using Any such forgiveness of indebtedness, in accordance with the CARES Act, does not give rise to federal taxable income. If not forgiven, the note bears interest at a rate of 1.00% and payments are scheduled to begin the latter of March 2021, or upon response by the SBA regarding our forgiveness application.

The PPP, established as part of the Coronavirus Aid, Relief and Economic Security Act ("CARES Act"), provides for loans to qualifying businesses for amounts up to 2.5 times of the average monthly payroll expenses of the qualifying business. Such loan provides for customary events of default, including, among others, those relating to failure to make payment when due and breaches of representations. The Company may prepay the principal of the loan at any time without incurring any prepayment charges. The loan is subject to all the terms and conditions applicable under the PPP and is subject to review by the

Small Business Association (the "SBA") for compliance with program requirements, including the Company's certification that the current economic uncertainty made the PPP loan request necessary to support ongoing operations.

In June 2020, the Payroll Protection Program Flexibility Act ("PPPFA") was signed into law adjusting certain key terms of loans issued under the PPP. In accordance with the PPPFA, the initial deferral period may be extended from six to up to ten months and the loan maturity may be extended from two to five years. The PPPFA also provided for certain other changes, including the extent to which the loan may be forgiven.

The loan's principal and accrued interest are forgivable to the extent that the proceeds are used for eligible purposes, subject to certain limitations, and that the Company maintains its payroll levels over a twenty-four-week period following the loan date. The loan forgiveness amount may be reduced if the Company terminates employees or reduces salaries during the twenty-four-week period. The Company believes that it has used the proceeds for eligible purposes consistent with the provisions of the PPPFA. However, there can be no assurance that any portion of the loan will be forgiven.

As the legal form of the loan is a debt obligation, the Company is accounting for it as debt under Accounting Standards Codification (ASC) 470, Debt and recorded a short-term debt obligation of $1.0 million, and a long-term debt obligation of $1.5 million in the consolidated balance sheet upon receipt of the loan proceeds. If any amount of the loan is ultimately forgiven, income from the extinguishment of debt would be recognized as a gain on loan extinguishment in the consolidated statement of operations.

Debt consists of the following:

	December 31, 2020	December 31, 2019
Innovatus Term Loan	$ —	$25,000
Midcap Trust Term Loan	32,500	—
PPP Loan	2,476	—
Plus: Paid-in-kind interest	—	115
Total debt	$34,976	$25,115
Unamortized debt discount	(515)	(687)
Accretion of final fee	59	38
Total debt, net	$34,520	$24,466
Less amount included as short-term	$ (1,032)	$ —
Long-term debt, net	$33,488	$24,466

As of December 31, 2020, future principal payments due under the Midcap Trust Term Loan and PPP Loan, excluding the $1,625 final payment fee, are as follows:

Year ended:	Midcap Trust Term Loan	PPP Loan
December 31, 2021	$ —	$1,032
December 31, 2022	$ —	$1,238
December 31, 2023	$ 2,708	$ 206
December 31, 2024	$16,250	$ —
December 31, 2025	$13,542	$ —
Total minimum principal payments	$32,500	$2,476

As a condition precedent to the Innovatus Term Loan, the Company also sold shares of Series D Preferred Stock at the same terms provided to the other investors as described in Note 10 for an aggregate amount of $2,000 to the Lender as part of the Series D Financing. Additionally, as a condition precedent to the Innovatus Term Loan, the Company agreed to receive at least $25,000 in net proceeds from the Series D Financing by December 2019, which the Company completed on September 27, 2019, as discussed below. In

connection with the Loan and Security Agreement, the Company also issued the Lender a warrant to purchase 368,779 additional shares of Series D Preferred Stock (the "Series D Warrant") at a purchase price of $1.53 per share. The expiration date of the warrant is September 27, 2029. The holder may at any time and from time to time exercise this Warrant, in whole or in part, and on any exercise of the Warrant, the Holder may elect to receive Shares equal to the value of the Warrant or portion. The initial warrant value of $192 was recorded as a debt discount and is being amortized over the term of the Innovatus Term Loan. See Note 5 for valuation of Warrant.

In 2019 the Company entered into two leases for computer equipment and furniture which are classified as capital lease obligations in the consolidated balance sheets. In 2020, the Company entered into a lease for staining equipment which is classified as a capital lease in the consolidated balance sheets. As of December 31, 2020 and 2019, the current portion of the lease obligations totaled $197 and $80, respectively, and the long-term portion totaled $277 and $205, respectively.

(10) Stockholder's equity

Common Stock

The Company has authorized 79,042,222 shares of Common Stock, $0.00001 par value per share, of which 62,220,020 shares are designated Class A common stock ("Class A Common Stock") and 16,822,202 shares are designated Class B common stock ("Class B Common Stock" or collectively the "Common Stock"). Each share of Class A Common Stock is entitled to one vote. The holders of Class B Common Stock are not entitled to vote. The holders of Common Stock are also entitled to receive dividends whenever funds are legally available and when declared by the board of directors, subject to the prior rights of holders of all classes of stock outstanding. As of December 31, 2020 and 2019, a total of 5,973,605 and 5,328,423 shares of Class B Common Stock were issued and outstanding, respectively, and 10,848,597 and 11,493,779 shares of Class B Common Stock were reserved for issuance upon the exercise of outstanding stock options, respectively, under the Company's 2015 Equity Incentive Plan. As of December 31, 2020 and 2019, no shares of Class A Common Stock were issued and outstanding.

Preferred Stock

The Company has authorized 62,220,020 shares of Preferred Stock, $0.00001 par value per share, of which 5,013,333 shares were designated Series A convertible preferred stock ("Series A Preferred Stock), 13,715,330 shares were designated Series B redeemable convertible preferred stock ("Series B Preferred Stock"), 26,732,361 shares were designated Series C redeemable convertible preferred stock ("Series C Preferred Stock"), and 16,758,996 shares were designated Series D redeemable convertible preferred stock ("Series D Preferred Stock, or collectively the "Preferred Stock").

In November 2015, the Company issued 5,013,333 shares of Series A Preferred Stock at a purchase price of $0.25 per share. The issuance resulted in cash proceeds of $1,253.

In July 2017, the Company issued 13,715,330 shares of Series B Preferred Stock at a purchase price of $0.6562 per share. The issuance resulted in cash proceeds of $8,943, net of issuance costs.

In September and November 2018, the Company issued 25,684,033 and 1,048,328 shares of Series C Preferred Stock, respectively, at a purchase price of $0.9539 per share. The issuances resulted in cash proceeds of $25,437, net of issuance costs.

On September 27, 2019, the Company issued 16,390,217 shares of Series D Preferred Stock at a purchase price of $1.5253 per share. The issuance resulted in cash proceeds of $24,824 net of issuance costs (the "Series D Financing").

As of December 31, 2020 and 2019, the Preferred Stock have the following rights, preferences and privileges:

Conversion rights

Each share of Preferred Stock is convertible at the option of the holder into Class A Common Stock shares at any time after the date of issuance. The number of Class A Common Stock shares to be issued in

the event of a conversion is determined by dividing the original issue price of $0.25, $0.6562, $0.9539 and $1.5253 for Series A, B, C and D Preferred Stock, respectively, by the conversion price of $0.25, $0.6562, $0.9539 and $1.5253 for Series A, B, C and D Preferred Stock, respectively.

The Preferred Stock automatically converts into shares of Class A Common Stock at the earlier of (i) the closing of an initial public offering of the Company's Common Stock at a price per share of at least $3.05 with gross proceeds to the Company of at least $50,000 or (ii) the date and time, or the occurrence of an event, specified by vote or written consent of the holders of two-thirds of the voting power of the then outstanding shares of Series D Preferred Stock, voting together as a separate class.

Redemption

After the fifth anniversaries of the Series B, C and D original issuance dates, respectively, shares of the respective class of Preferred Stock may be redeemed at a price equal to the original issue price per share, plus all dividends accrued but unpaid and all declared but unpaid other dividends (the "Redemption Price"), in two semi-annual installments commencing not more than 180 days after receipt by the Company of written notice from two-thirds of the voting power of then outstanding shares of each respective class requesting redemption. No explicit redemption rights exist for Series A Preferred Stock. Since the Series B, C, and D are redeemable upon a liquidation event, which is not considered to be within the Company's control, they have been classified in temporary equity on the accompanying consolidated balance sheets.

Dividends

Dividends accrue at a rate of 8% per annum on the original issuance price of Series B, C and D Preferred Stock (the "Accruing Dividends"). Accruing Dividends become due and payable if the Preferred Stock is redeemed by election of the majority holders of Series B, Series C or Series D Preferred Stock on or after the fifth anniversary of the applicable original issuance dates, or upon the occurrence of a liquidation event if the Series B, C or D Redemption Price, respectively, exceeds the aggregate of the Liquidation Preference plus Common Participation, as defined below, for that series of Preferred Stock. Except for the Accruing Dividends payable to holders of Series B, C and D Preferred Stock, holders of the Preferred Stock and Common Stock are entitled to receive dividends declared by the board of directors on an equal basis according to the number of shares of Common Stock and Common Stock into which the Preferred Stock is then convertible.

Liquidation Preference

Upon liquidation, dissolution or winding-up of the Company, or a merger, consolidation, lease or transfer of the Company (a "Deemed Liquidation Event"), shareholders of Series A, B, C and D Preferred Stock are entitled to receive a liquidation preference in priority to holders of common stock equal to $0.25, $0.6562, $0.9539, and $1.5253 per share, respectively, plus any declared but unpaid dividends (the "Liquidation Preference"). In any such event, Series D and C Preferred Stockholders would receive first priority in liquidation payments; Series B Preferred Stockholders would receive next priority after Series C Preferred Stockholders, and Series A Preferred Stockholders would receive next priority after Series B Preferred Stockholders. Any remaining amounts would be distributed to holders of Preferred Stock and Common Stock on a pro rata basis, with the shares of Preferred Stock treated as if they have been converted into shares of Common Stock (the "Common Participation").

In the event that the aggregate of the Liquidation Preference and Common Participation for Series B, C and D Preferred Stockholders, respectively, would fall short of the Liquidation Preference plus any accrued dividends not yet paid for that series of Preferred Stock, the assets would be distributed (i) first among Series D and C Preferred Stockholders in proportion to their aggregate Liquidation Preference amounts, plus any accrued but unpaid dividends until such amounts are paid in full; (ii) second, to Series B Preferred Stockholders in proportion to their aggregate Liquidation Preference amounts, plus any accrued but unpaid dividends until such amounts are paid in full; (iii) third, to Series A Preferred Stockholders and Common Stockholders pro rata based on the number of shares held by each holder, with the shares of Series A Preferred Stock treated as if they have been converted into shares of Common Stock.

Voting Rights

Holders of Series A, B, C and D Preferred Stock are entitled to vote as a single class with the holders of Class A Common Stock, and have one vote for each equivalent common share into which the preferred stock is convertible. Holders of the shares of Series D Preferred Stock, exclusively and as a separate class, are entitled to elect two directors of the Company, Series C Preferred Stock, exclusively and as a separate class, are entitled to elect three directors of the Company, and holders of the shares of Series B Preferred Stock, exclusively and as a separate class, are entitled to elect one director of the Company.

(11) Stock compensation plan

2015 Equity Incentive Plan

The Company's 2015 Equity Incentive Plan (the "2015 Plan") was established for granting stock incentive awards to directors, officers, employees and consultants to the Company. The 2015 Plan provided for the grant of incentive and non-qualified stock options, stock appreciation rights, restricted stock and restricted stock units as determined by the board of directors. Under the 2015 Plan, stock options are generally granted with exercise prices equal to or greater than the fair value of the common stock as determined by the board of directors, expire no later than 10 years from the date of grant, and vest over various periods not exceeding four years.

Stock Options

During the year ended December 31, 2020 and 2019, the Company granted options to employees with an aggregate fair value of $565 and $529, respectively, which are being amortized into compensation expense over the requisite service period. The Company uses the Black-Scholes option pricing model to determine the fair value of stock options. The valuation model for stock compensation expense requires the Company to make assumptions and judgments about the variables used in the calculation including the expected term (weighted-average period of time that the options granted are expected to be outstanding), volatility of the Company's common stock and an assumed-risk-free interest rate.

The fair value of the shares of common stock underlying the stock options has historically been determined by the Board of Directors. Because there has been no public market for the Company's common stock, the Board of Directors has determined fair value of the common stock at the time of grant of the option by considering a number of objective and subjective factors including valuation of comparable companies, sales of convertible preferred stock to unrelated third parties, operating and financial performance, the lack of liquidity of capital stock, and general and industry specific economic outlook, amongst other factors. In determining the fair value of the common stock, the methodologies used to estimate the enterprise value were performed using methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants Accounting Practice Aid, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*. The fair value of the underlying common stock will be determined by the Board of Directors, after consideration of a third-party valuation report, until the Company's common stock is listed on an established stock exchange or national market system.

Expected Volatility. Since the Company is a private entity with no historical data regarding the volatility of its common stock, the expected volatility used is based on volatility of a group of similar entities, referred to as "guideline" companies. In evaluating similarity, the Company considered factors such as industry, stage of life cycle and size.

Expected Term. The Company derived the expected term using the "simplified" method (the expected term is determined as the average of the time-to-vesting and the contractual life of the options), as the Company had limited historical information to develop expectations about future exercise patterns and post vesting employment termination behavior.

Risk-Free Interest Rate. The risk-free interest rate is based on U.S. Treasury zero-coupon issues with remaining terms similar to the expected term on the options.

Dividend Yield. The Company has never paid any dividends and does not plan to pay dividends in the foreseeable future, and, therefore, used an expected dividend yield of zero in the valuation model.

The following is a summary of option activity under the 2015 Plan:

	Number of Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (In years)	Aggregate Intrinsic Value
Outstanding at December 31, 2019	7,354,987	$0.19	8.9	$ 1,267
Granted	3,058,315	0.29		
Exercised	(645,182)	0.19		
Canceled	(633,191)	0.22		
Outstanding at December 31, 2020	9,134,929	$0.22	8.2	$13,882
Exercisable at December 31, 2020	4,948,005	$0.17	7.8	$ 7,765

The table above includes 274,264 and 971,051 of performance-based option shares issued to employees in 2017 and 2019, respectively, with an exercise price of $0.13 and $0.19 per share, respectively, which are shown as granted in 2020. As of the original issuance date, the performance conditions were not established, and therefore there was no grant date as prescribed by ASC 718. In 2020, the options vested as performance conditions were established and determined to have been achieved. We recorded $274 of stock-based compensation expense for such awards in 2020.

The table above excludes 50,000 of performance-based option shares issued to employees in 2020 with an exercise price of $0.36 per share. As of December 31, 2020, the performance conditions of such options have yet to be established and therefore there is no grant date as prescribed by ASC 718.

The weighted-average fair value of options granted to employees in the year ended December 31, 2020 and 2019 was $0.19 and $0.10 per share per share, respectively, and was calculated using the following estimated assumptions:

	Year ended December 31, 2020	Year ended December 31, 2019
Weighted-average risk-free interest rate	0.8%	2.2%
Expected dividend yield	0%	0%
Expected volatility	46.6%	44.2%
Expected term	5.4 years	5.9 years

Stock-based compensation related to the Company's stock-based awards was recorded as an expense and allocated as follows:

	Year ended December 31,	
	2020	2019
Cost of goods sold	$ 7	$ 2
Selling, general and administrative	347	103
Research and development	123	48
Total stock-based compensation	$477	$153

As of December 31, 2020 and 2019, there was $478 and $446, respectively, of total unrecognized compensation cost related to non-vested stock options granted to employees under the 2015 Plan. The Company expects to recognize that cost over a remaining weighted-average period of 2.8 and 2.6 years as of December 31, 2020 and 2019, respectively. Such amounts exclude the performance grant options noted above.

Stock incentive awards to nonemployees were determined to be immaterial as of December 31, 2020 and 2019.

(12) Income taxes

The components of net income (loss) before income taxes for the years ending December 31, 2020 and 2019 is as follows:

	December 31, 2020	December 31, 2019
Domestic	(16,781)	(14,665)
Foreign	117	108
Total	$(16,664)	$(14,557)

The Company's income tax provision for the years ending December 31, 2020 and 2019 is as follows:

	December 31, 2020	December 31, 2019
Federal	—	—
State	5	16
Foreign	30	23
Total current tax provision	$35	$ 39
Federal	2	64
State	5	91
Foreign	—	—
Total deferred tax provision	$ 7	$155
Total tax provision	$42	$194

A reconciliation between income tax benefit and the expected tax benefit at the statutory rate for the years ended December 31, 2020 and 2019 is as follows:

	2020	2019
Federal statutory rate	21.00%	21.00%
State rate, net of federal benefit	4.09%	4.98%
Permanent differences	(1.23)%	(0.63)%
Tax credits generated	7.01%	6.03%
Change in valuation allowance	(24.49)%	(23.55)%
Uncertain tax positions	(5.91)%	(10.46)%
Foreign rate differential	0.02%	0.01%
Other items	(0.74)%	1.29%
Effective tax rate	(0.25)%	(1.33)%

The significant components of the Company's net deferred tax liability consist of the following at December 31, 2020 and 2019:

Deferred tax assets (liabilities):	December 31, 2020	December 31, 2019
Deferred tax assets		
Net operating losses	$ 10,397	$ 6,135
Accruals & reserves	379	272
Intangibles	291	217
Other	186	441
Gross deferred tax assets	11,253	7,065
Valuation Allowance	(10,750)	(6.668)
Net deferred tax assets	503	397
Deferred tax liabilities		
Depreciation	(237)	(129)
Goodwill	(436)	(431)
Net deferred tax liability	$ (170)	$ (163)

ASC 740 requires a valuation allowance to reduce the deferred tax assets reported if, based on the weight of available evidence, it is more likely than not that some portion or all the deferred tax assets will not be realized. Based upon the level of historical U.S. losses and future projections over the period in which the net deferred tax assets are deductible, at this time, management believes it is more likely than not that the Company will not realize the benefits of these deductible differences, and as a result the Company continues to maintain a valuation allowance for the full amount of the 2020 deferred tax assets. The increase in the 2020 valuation allowance is primarily attributable to the current year loss.

As of December 31, 2020 and 2019, for federal income tax purposes the Company had total net operating loss carryforwards of approximately $41,315 and $24,353, respectively. As of December 31, 2020, approximately $2,567 will begin to expire in 2036 and approximately $38,749 of the net operating losses will have an indefinite carryforward as a result of the Tax Cuts and Jobs Act. For state income tax purposes, as of December 31, 2020 and December 31, 2019 the Company had net operating loss carryforwards of approximately $26,161 and $15,310, respectively, which begin to expire in 2036.

As of December 31, 2020 and 2019, the Company has available federal research development tax credit carryforwards of approximately $1,544 and $943, respectively. The federal research credits will begin to expire in 2036. As of December 31, 2020 and December 31, 2019, the Company has available state research development tax credit carryforwards of approximately $1,220 and $734, respectively. The state tax credit carryforwards consist of credits with both a limited carryforward period and unlimited carryforward period. Unused credits with a limited carryforward period will begin to expire in 2032.

Under the provisions of the Internal Revenue Code, the net operating loss and tax credit carryforwards are subject to review and possible adjustment by the Internal Revenue Service and state tax authorities. Net operating loss and tax credit carryforwards may become subject to an annual limitation in the event of certain cumulative changes in the ownership interest of significant shareholders over a three-year period in excess of 50%, as defined under Sections 382 and 383 of the Internal Revenue Code, respectively, as well as similar state provisions. This could limit the amount of tax attributes that can be utilized annually to offset future taxable income or tax liabilities. The amount of the annual limitation is determined based on the value of the Company immediately prior to the ownership change. Subsequent ownership changes may further affect the limitation in future years. The Company has completed equity financings transactions which may have resulted in a change in control as defined by Sections 382 and 383 of the Internal Revenue Code, or could result in a change in control in the future. The Company does not believe the impact of any limitation on the use of its net operating loss or credit carryforwards will have a material impact on the Company's consolidated financial statements since the Company has a full valuation allowance against its deferred tax assets due to the uncertainty regarding future taxable income for the foreseeable future.

The Company has not yet completed a study of its research and development credit carryforwards. Once completed, this study may result in an adjustment to the research and development credit carryforwards claimed on the tax returns. Until such time a research credit study is completed, the Company will not record an asset for research credits claimed on the tax returns. If an adjustment is required at the time the study is completed, this adjustment would be recorded as an adjustment to the deferred tax asset for the research and development credit carryforward and the valuation allowance.

A rollforward of the uncertain tax position that was primarily related to our research and development tax credits is as follows (in thousands):

Uncertain tax positions at December 31, 2018	$ —
Increase in uncertain tax positions in the current period	1,677
Uncertain tax positions at December 31, 2019	1,677
Increase in uncertain tax positions	1,086
Uncertain tax positions at December 31, 2020	2,763

Uncertain tax positions of $2.8 million will impact our tax rate if realized.

Interest and penalty charges, if any, related to uncertain tax positions would be classified as income tax expenses in the accompanying Consolidated statements of operations. At December 31, 2020 and 2019, the Company had no accrued interest or penalties related to uncertain tax positions.

The Company files income tax returns in the U.S. federal tax jurisdiction and various state jurisdictions. Since the Company is in a loss carryforward position, the Company is generally subject to examination by the U.S. federal, state and local income tax authorities for all years in which a loss carryforward is available. The statute of limitations for assessment by federal and state tax jurisdictions in which the Company has business operations is open for tax years ending December 31, 2016 and after. The tax years subject to examination vary by jurisdiction.

(13) Commitments and contingencies

Operating Leases

In November 2017, the Company entered into a month to month tenancy agreement for office and laboratory space in Menlo Park, CA. In connection with this agreement, the Company paid a security deposit totaling $56, which is recorded as a component of prepaid expenses and other current assets in the Consolidated Balance Sheet. The Company additionally entered into a tenancy agreement for office and laboratory space in Hopkinton, MA as part of the Transition Services Agreement with PKI in 2018. This tenancy agreement expired in October 2019.

In July 2019, the Company entered into a seven-year office lease agreement for office and laboratory space in Marlborough, MA. In connection with this agreement, the Company paid a security deposit totaling $450 in the form of a letter of credit, which is recorded as restricted cash in the Consolidated Balance Sheet. Additionally, in July 2019, the Company signed a seven-year lease agreement for office and laboratory space in Menlo Park, CA. In connection with this agreement, the Company paid a security deposit totaling $181, which is recorded as a component of long-term assets in the Consolidated Balance Sheet; the lease commencement date was May 2020.

Contractual cash payments for the Marlborough and Menlo Park lease by fiscal year are as follows:

2021	$1,140
2022	$1,179
2023	$1,219
2024	$1,259
2025	$1,300
Thereafter	$1,399
Total	$7,496

Total rent expense for the years ended December 31, 2020 and 2019 was $1,169 and $927, respectively.

License Agreements

In November 2015, the Company entered into a license agreement with The Board of Trustees of the Leland Stanford Junior University (“Stanford”), pursuant to which Stanford granted the Company an exclusive, worldwide, sublicensable license under certain patent rights to make, use, import and commercialize products for diagnostic, industrial and research and development purposes. The Company agreed to pay annual license maintenance fees ranging from $20 to $50 for the royalty-bearing license to certain patents. The Company also issued a total of 213,333 shares of Class B common stock pursuant to the agreement in 2015, which were recorded at fair value at the date of issuance. The Company is required to pay royalties on net sales of products that are covered by patent rights under the agreement at a rate of 2.25%, subject to reductions and offsets in certain circumstances.

In September 2018, in connection with the acquisition of the QPS division of PKI, as further detailed in Note 4, the Company entered into a License Agreement with PKI, pursuant to which PKI granted the Company an exclusive, nontransferable, sublicensable license under certain patent rights to make, use, import and commercialize QPS products and services. The Company is required to pay royalties on net sales of products and services that are covered by patent rights under the agreement at a rate ranging from 1.0% to 7.0%. The Company recorded approximately $1.8 million and $2.5 million of accrued royalties in connection with this agreement during the years ended December 31, 2020 and 2019, respectively, payable in the first quarter of 2021 and 2020, respectively.

Transition Services Agreement

In September 2018, in connection with the acquisition of the QPS division of PKI, the Company entered into a Transition Services Agreement under which PKI will continue to provide various services (i.e. manufacturing, distribution) to the Company relating to the QPS division over a period of one year in exchange for payment. Over the term of the Transition Services Agreement, the Company will provide PKI with instrument demand forecasts for production and purchase orders specifying the quantity of items (i.e. instruments, consumables) to be purchased. Upon termination of the Agreement, all raw materials, work in process, replacement parts, supplies, and finished goods in the possession of PKI and not already owned by the Company will be purchased by the Company per the associated pricing list in the Transition Services Agreement. The nature of the future components of the Transition Services Agreement, and the amount of goods to be purchased from PKI upon termination of the Transition Services Agreement, is inherently variable based on the unknown future quantity of goods to be produced and goods and services to be provided to the Company under the terms of the Transition Services Agreement. The Company paid $3,957 in 2019 for such inventory. In addition, the Company incurred expense of $3,408 to PKI under the Transition Services Agreement in 2019, which was terminated as of December 31, 2019.

Research Agreements

In 2019 the Company entered into a research arrangement with an unrelated third party. Under this arrangement, we are obligated to pay such third party $0.5 million, $0.4 million, and $0.1 million in 2021, 2022, and 2023, respectively.

(14) Net loss per share attributable to common stockholders

Potentially issuable shares of common stock include shares issuable upon the exercise of outstanding employee stock option awards. Awards granted with performance conditions are excluded from the shares used to compute diluted earnings per share until the performance conditions associated with the awards are met.

The following table sets forth the computation of basic and diluted earnings per common share:

	Year ended December 31,	
	2020	2019
Net loss	$ (16,706)	$ (14,751)
Dividends accrued on redeemable convertible preferred stock	(4,760)	(3,260)
Accretion of redeemable convertible preferred stock	(296)	(296)
Adjusted net loss attributable to common stockholders	$ (21,762)	$ (18,307)
Weighted average common shares used in net loss per share attributable to common stockholders, basic and diluted	5,523,458	5,303,199
Basic and diluted net loss per common share outstanding	$ (3.94)	$ (3.45)

The Company's potential dilutive securities, which include stock options, convertible preferred stock, and warrant, have been excluded from the computation of diluted net loss per share attributable to common stockholders whenever the effect of including them would be to reduce the net loss per share. In periods where there is a net loss, the weighted average number of common shares outstanding used to calculate both basic and diluted net loss per share attributable to common stockholders is the same. The following potential common shares, presented based on amounts outstanding at each period end, were excluded from the calculation of diluted net loss per share attributable to common stockholders for the periods indicated because including them would have had an anti-dilutive effect:

	Year Ended December 31,	
	2020	2019
Series A Convertible Preferred Stock	5,013,333	5,013,333
Series B Redeemable Convertible Preferred Stock	13,715,330	13,715,330
Series C Redeemable Convertible Preferred Stock	26,732,361	26,732,361
Series D Redeemable Convertible Preferred Stock	16,390,217	16,390,217
Outstanding stock options	9,134,929	7,354,987
Performance-based stock options	50,000	1,245,315
Warrant to purchase Series D convertible preferred stock	368,779	368,779
Total	71,404,949	70,820,322

(15) Segments

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker, or decision-making group, in deciding how to allocate resources and in assessing performance. The Company's chief operating decision maker is its Chief Executive Officer. The Company has one business activity and there are no segment managers who are held accountable for operations. Accordingly, the Company has a single reportable segment structure. The Company's principal operations and decision-making functions are located in the United States.

The following table provides the Company's revenues by geographical market based on the location where the services were provided or to which product was shipped:

	Year Ended December 31,	
	2020	2019
North America	$20,178	$22,202
APAC	10,409	9,444
EMEA	11,856	10,590
Total Revenue	$42,443	$42,236

	Year Ended December 31,	
	2020	2019
North America	47%	53%
APAC	25%	22%
EMEA	28%	25%
Total Revenue	100%	100%

North America includes the United States and related territories, as well as Canada. APAC also includes Australia. For the period ended December 31, 2020 and 2019, we had one country with 11% and another country with 12% of total revenue, respectively.

As of December 31, 2020 and 2019, substantially all of the Company's long-lived assets are located in the United States of America.

(16) Related party transactions

For the year ended December 31, 2020 and 2019, the Company recognized $0.2 million and $0.4 million in revenue, respectively, and $0.1 million and $0.2 million in cost of goods sold, respectively with Stanford University. Stanford University holds greater than 5% of our total outstanding shares.

During the year ended December 31, 2020, the Company incurred costs of goods sold of approximately $1.5 million related to sales of consumables manufactured by Argonaut Manufacturing services. As of December 31, 2020 and 2019, $1.3 million and $0.3 million, respectively, is included in inventory related to consumables manufactured by Argonaut Manufacturing services. As of December 31, 2020 and 2019, the Company had $0.6 million and $0.5 million in accounts payable, respectively, due to Argonaut Manufacturing services. Argonaut Manufacturing services is a portfolio company of Telegraph Hill Partners, which holds greater than 5% of our total outstanding shares.

(17) Subsequent events

The Company has evaluated subsequent events from the Consolidated Balance Sheet date through March 12, 2021, which is the date the consolidated financial statements were available to be issued.

Shares

Akoya Biosciences, Inc.

Common Stock

Preliminary Prospectus

Joint Book-Running Managers

J.P. Morgan **Morgan Stanley** **Piper Sandler** **Canaccord Genuity**

Through and including , 2021 (the 25th day after the date of this prospectus), all dealers effecting transactions in our common stock, whether or not participating in our initial public offering, may be required to deliver a prospectus. This delivery requirement is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth all expenses to be paid by Akoya Biosciences, Inc. (the "Registrant"), other than the underwriting discounts and commissions, upon closing of this offering. All amounts shown are estimates except for the SEC registration fee, the FINRA filing fee and the Nasdaq exchange listing fee.

SEC registration fee	$12,546.50
FINRA filing fee	$17,750.00
Nasdaq exchange listing fee	*
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent and registrar fees	*
Miscellaneous expenses	*
Total	$ *

* To be provided by amendment.

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act. The Registrant's amended and restated certificate of incorporation that will be in effect upon the closing of this offering requires the Registrant to indemnify its directors and officers to the maximum extent permitted by the Delaware General Corporation Law, and the Registrant's amended and restated bylaws that will be in effect upon the closing of this offering provide that the Registrant will indemnify its directors and officers and permit the Registrant to indemnify its employees and other agents, in each case to the maximum extent permitted by the Delaware General Corporation Law.

The Registrant has entered into indemnification agreements with its directors and officers, whereby it has agreed to indemnify its directors and officers to the fullest extent permitted by law, including indemnification against expenses and liabilities incurred in legal proceedings to which the director or officer was, or is threatened to be made, a party by reason of the fact that such director or officer is or was a director, officer, employee or agent of the Registrant, provided that such director or officer acted in good faith and in a manner that the director or officer reasonably believed to be in, or not opposed to, the best interest of the Registrant. At present, there is no pending litigation or proceeding involving a director or officer of the Registrant regarding which indemnification is sought, nor is the registrant aware of any threatened litigation that may result in claims for indemnification.

The Registrant maintains insurance policies that indemnify its directors and officers against various liabilities arising under the Securities Act and the Exchange Act that might be incurred by any director or officer in his or her capacity as such.

The underwriting agreement filed as Exhibit 1.1 to this registration statement will provide for indemnification by the underwriters of the Registrant and its officers and directors for certain liabilities arising under the Securities Act or otherwise.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES.

Since January 1, 2018, the Registrant has issued and sold the following unregistered securities without registration under the Securities Act of 1933, as amended (the "Securities Act"):

(a) Sales of Series D Preferred Stock

On September 27, 2019, the Registrant entered into a Series D Preferred Stock Purchase Agreement, pursuant to which it issued and sold an aggregate of 16,390,217 shares of its Series D convertible preferred stock at a price per share of $1.5253, for an aggregate purchase price of approximately $25.0 million. On September 27, 2019, the Registrant also issued warrants to purchase an aggregate of 368,779 shares of its Series D Preferred Stock, exercisable for a period of 10 years at an exercise price of $1.5253 per share, to Innovatus Life Sciences Lending Fund I, LP in connection with the entry into that certain Loan and Security Agreement with Innovatus Life Sciences Lending Fund I, LP in 2019.

No broker-dealers were involved in the foregoing issuances of securities. The securities described in this section (a) of Item 15 were issued to investors in reliance upon the exemption from the registration requirements of the Securities Act, as set forth in Section 4(a)(2) under the Securities Act and Regulation D promulgated thereunder relative to transactions by an issuer not involving any public offering, to the extent an exemption from such registration was required. All holders of securities described above represented to the Registrant in connection with their purchase or issuance that they were accredited investors and were acquiring the securities for their own account for investment purposes only and not with a view to, or for sale in connection with, any distribution thereof and that they could bear the risks of the investment and could hold the securities for an indefinite period of time. The holders received written disclosures that the securities had not been registered under the Securities Act and that any resale must be made pursuant to a registration statement or an available exemption from such registration.

(b) Sales of Series C Preferred Stock

On September 26, 2018 the Registrant entered into a Series C Preferred Stock Purchase Agreement, pursuant to which it issued and sold an aggregate of 26,732,361 shares of its Series C convertible preferred stock at a price per share of $0.9539, for an aggregate purchase price of approximately $25.5 million.

No broker-dealers were involved in the foregoing issuances of securities. The securities described in this section (a) of Item 15 were issued to investors in reliance upon the exemption from the registration requirements of the Securities Act, as set forth in Section 4(a)(2) under the Securities Act and Regulation D promulgated thereunder relative to transactions by an issuer not involving any public offering, to the extent an exemption from such registration was required. All holders of securities described above represented to the Registrant in connection with their purchase or issuance that they were accredited investors and were acquiring the securities for their own account for investment purposes only and not with a view to, or for sale in connection with, any distribution thereof and that they could bear the risks of the investment and could hold the securities for an indefinite period of time. The holders received written disclosures that the securities had not been registered under the Securities Act and that any resale must be made pursuant to a registration statement or an available exemption from such registration.

(c) Grants and Exercises of Stock Options

From January 1, 2018 to December 31, 2020, the Registrant granted stock options to purchase an aggregate of 10,604,302 shares of its common stock, with exercise prices ranging from $0.05 to $0.39 per share and a weighted average exercise price of $0.22, to employees, directors and consultants pursuant to the 2015 Plan. The registrant has also issued 678,411 shares of common stock upon the exercise of stock options under the 2015 Plan from January 1, 2018 through December 31, 2020.

The stock options and the common stock issuable upon the exercise of such options as described in this section (c) of Item 15 were issued pursuant to written compensatory plans or arrangements with the Registrant's employees and directors, in reliance on the exemption from the registration requirements of the Securities Act provided by Rule 701 promulgated under the Securities Act or the exemption set forth in Section 4(a)(2) under the Securities Act and Regulation D promulgated thereunder relative to transactions

by an issuer not involving any public offering. All recipients either received adequate information about the Registrant or had access, through employment or other relationships, to such information.

All of the foregoing securities are deemed restricted securities for purposes of the Securities Act. All certificates representing the issued shares of capital stock described in this Item 15 included appropriate legends setting forth that the securities had not been registered and the applicable restrictions on transfer.

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

(a) *Exhibits*.

Exhibit Number	Exhibit Description
1.1*	Form of Underwriting Agreement.
3.1	Amended and Restated Certificate of Incorporation, as currently in effect.
3.2	Amended and Restated Bylaws, as currently in effect.
3.3	Form of Amended and Restated Certificate of Incorporation, to be effective immediately prior to closing of this offering.
3.4	Form of Amended and Restated Bylaws, to be effective immediately prior to closing of this offering.
5.1*	Opinion of DLA Piper LLP (US).
10.1+	Akoya Biosciences, Inc. 2015 Equity Incentive Plan, as amended, and form of stock option agreement thereunder.
10.2+*	Akoya Biosciences, Inc. 2021 Equity Incentive Plan and form of stock option agreement thereunder.
10.3+*	Akoya Biosciences, Inc. 2021 Employee Stock Purchase Plan.
10.4+	Form of Indemnification Agreement between the Registrant and each of its directors and executive officers.
10.5+	Offer Letter, dated June 28, 2017, by and between the Registrant and Brian McKelligon.
10.6+	Letter Amendment, dated October 8, 2018, by and between the Registrant and Brian McKelligon.
10.7+	Offer Letter, dated January 28, 2019, by and between the Registrant and Joseph Driscoll.
10.8+	Offer Letter, dated July 14, 2020, by and between the Registrant and Niroshan Ramachandran.
10.9†	Exclusivity (Equity) Agreement, dated November 17, 2015, by and between the Registrant and The Board of Trustees of the Leland Stanford Junior University.
10.10†	Amendment No. 1 to the License Agreement, dated November 18, 2016, by and between the Registrant and The Board of Trustees of the Leland Stanford Junior University.
10.11†	License and Royalty Agreement, dated September 28, 2018, by and among the Registrant, PerkinElmer Health Sciences, Inc., Cambridge Research & Instrumentation, Inc. and VisEn Medical Inc.
10.12†	Transition Services Agreement, dated September 28, 2018, by and between the Registrant and PerkinElmer Health Sciences, Inc., as amended by First Amendment to the Transition Services Agreement, dated September 27, 2019.
10.13†	Exclusive Patent License Agreement, dated June 26, 2018, by and between the Registrant and the University of Washington.
10.14	Credit and Security Agreement, dated October 27, 2020, by and between the Registrant and Midcap Financial Trust.
10.15	Amended and Restated Investors' Rights Agreement, dated September 27, 2019, by and among the Registrant and certain of its stockholders.
10.16	Offer Letter, dated March 2, 2021, by and between Registrant and Frederic Pla.
21.1	List of Subsidiaries of the Registrant.
23.1	Consent of RSM US LLP, Independent Registered Public Accounting Firm.
23.2*	Consent of DLA Piper LLP (US) (included in Exhibit 5.1).
24.1	Power of Attorney (included on signature page of this registration statement).

* To be filed by amendment.

\+ Management contract or compensatory plan or arrangement.

† Portions of this exhibit have been omitted for confidentiality purposes.

(b) *Financial Statement Schedules*. All financial statement schedules are omitted because the information called for is not required or is shown either in the consolidated financial statements or in the notes thereto.

ITEM 17. UNDERTAKINGS.

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act, may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act, and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this registration statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in Marlborough, Massachusetts, on the 26th day of March, 2021.

Akoya Biosciences, Inc.

By: /s/ Brian McKelligon
Brian McKelligon
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Brian McKelligon and Joseph Driscoll, and each of them, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution and full power to act without the other, for him or her and to act in his or her name, place and stead, in any and all capacities, to execute the Registration Statement on Form S-1 of Akoya Biosciences, Inc. and any or all amendments (including post-effective amendments) thereto and any new registration statement with respect to the offering contemplated hereby filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises hereby ratifying and confirming all that said attorneys-in-fact and agents, or his or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement on Form S-1 has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Brian McKelligon Brian McKelligon	President, Chief Executive Officer and Director (Principal Executive Officer)	March 26, 2021
/s/ Joseph Driscoll Joseph Driscoll	Chief Financial Officer (Principal Financial and Accounting Officer)	March 26, 2021
/s/ Garry Nolan Garry Nolan, PhD	Director	March 26, 2021
/s/ Thomas Raffin Thomas Raffin, MD	Director	March 26, 2021
/s/ Thomas P. Schnettler Thomas P. Schnettler	Director	March 26, 2021
/s/ Robert Shepler Robert Shepler	Chairman of the Board	March 26, 2021
/s/ Matthew Winkler Matthew Winkler, PhD	Director	March 26, 2021

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
AKOYA BIOSCIENCES, INC.

(Pursuant to Sections 242 and 245 of the
General Corporation Law of the State of Delaware)

Akoya Biosciences, Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "**General Corporation Law**"),

DOES HEREBY CERTIFY:

1. That the name of this corporation is Akoya Biosciences, Inc., and that this corporation was originally incorporated pursuant to the General Corporation Law on November 13, 2015 under the name Akoya Biosciences, Inc.

2. That the Board of Directors duly adopted resolutions proposing to amend and restate the Certificate of Incorporation of this corporation, declaring said amendment and restatement to be advisable and in the best interests of this corporation and its stockholders, and authorizing the appropriate officers of this corporation to solicit the consent of the stockholders therefor, which resolution setting forth the proposed amendment and restatement is as follows:

RESOLVED, that the Certificate of Incorporation of this corporation be amended and restated in its entirety to read as follows:

FIRST: The name of this corporation is Akoya Biosciences, Inc. (the "**Corporation**").

SECOND: The address of the registered office of the Corporation in the State of Delaware is 850 New Burton Road, Suite 201, Dover, County of Kent, Delaware 19904. The name of the registered agent at such address is Cogency Global Inc.

THIRD: The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

FOURTH: The total number of shares of all classes of stock which the Corporation shall have authority to issue is (i) 79,042,222 shares of Common Stock, $0.00001 par value per share ("**Common Stock**"), of which 62,220,020 shares are hereby designated "**Class A Common Stock**" and 16,822,202 shares are hereby designated "**Class B Common Stock**" and (ii) 62,220,020 shares of Preferred Stock, $0.00001 par value per share ("**Preferred Stock**"), of which 5,013,333 shares are hereby designated "**Series A Preferred Stock**", 13,715,330 shares are hereby designated "**Series B Preferred Stock**", 26,732,361 shares are hereby designated "**Series C Preferred Stock**" and 16,758,996 shares are hereby designated "**Series D Preferred Stock**".

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation.

A. COMMON STOCK

1. General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights, powers and preferences of the holders of the Preferred Stock set forth herein. Unless otherwise indicated, references to "Sections" or "Subsections" in this Part A of this Article Fourth refer to sections and subsections of Part A of this Article Fourth.

2. Voting. The holders of the Class A Common Stock are entitled to one vote for each share of Common Stock held at all meetings of stockholders (and written actions in lieu of meetings); provided, however, that, except as otherwise required by law, holders of Common Stock, as such, shall not be entitled to vote on any amendment to the Certificate of Incorporation that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to the Certificate of Incorporation or pursuant to the General Corporation Law. The holders of Class B Common Stock shall not be entitled to vote on any matter presented to the stockholders of the Corporation, except as required by the General Corporation Law of the State of Delaware and pursuant to Section 3.2 of Part B of this Article Fourth below. There shall be no cumulative voting. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by (in addition to any vote of the holders of one or more series of Preferred Stock that may be required by the terms of the Certificate of Incorporation) the affirmative vote of the holders of shares of capital stock of the Corporation representing a majority of the votes represented by all outstanding shares of capital stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(6)(2) of the General Corporation Law.

B. PREFERRED STOCK

The Preferred Stock shall have the following rights, preferences, powers, privileges and restrictions, qualifications and limitations. Unless otherwise indicated, references to "Sections" or "Subsections" in this Part B of this Article Fourth refer to sections and subsections of Part B of this Article Fourth.

1. Dividends.

1.1 Series D Accruing Dividends. For so long as any shares of Series D Preferred Stock remain issued and outstanding, dividends at the rate per annum of eight percent (8%) of the Series D Original Issue Price (as defined below) shall accrue on such shares of Series D Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series D Preferred Stock) (the "**Series D Accruing Dividends**"). The Series D Accruing Dividends shall only become due and payable if (i) the Series D Preferred Stock is redeemed under Section 6 or (ii) in the specific circumstance set forth in Section 2.1(e)(i) regarding payment to the holders of Series D Preferred Stock of not less than the Series D Redemption Price, including without limitation in connection with a Sale of the Company (as defined in the Amended and Restated Voting Agreement by and among the Corporation and certain stockholders of the Corporation dated on or about the date hereof). In the event any shares of Series D Preferred Stock are converted into Class A Common Stock prior to the redemption of the Series D Preferred Stock or a Deemed Liquidation Event, then such Series D Preferred Stock shall not be entitled to receive any Series D Accruing Dividends. The "**Series D Original Issue Price**" shall mean $1.5253 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series D Preferred Stock.

1.2 Series C Accruing Dividends. For so long as any shares of Series C Preferred Stock remain issued and outstanding, dividends at the rate per annum of eight percent (8%) of the Series C Original Issue Price (as defined below) shall accrue on such shares of Series C Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series C Preferred Stock) (the "**Series C Accruing Dividends**"). The Series C Accruing Dividends shall only become due and payable if (i) the Series C Preferred Stock is redeemed under Section 6 or (ii) in the specific circumstance set forth in Section 2.21(e)(ii) regarding payment to the holders of Series C Preferred Stock of not less than the Series C Redemption Price, including without limitation in connection with a Sale of the Company. In the event any shares of Series C Preferred Stock are converted into Class A Common Stock prior to the redemption of the Series C Preferred Stock or a Deemed Liquidation Event, then such Series C Preferred Stock shall not be entitled to receive any Series C Accruing Dividends. The "**Series C Original Issue Price**" shall mean $0.9539 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series C Preferred Stock.

1.3 Series B Accruing Dividends. For so long as any shares of Series B Preferred Stock remain issued and outstanding, dividends at the rate per annum of eight percent (8%) of the Series B Original Issue Price (as defined below) shall accrue on such shares of Series B Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series B Preferred Stock) (the "**Series B Accruing Dividends**"). The Series B Accruing Dividends shall only become due and payable if (i) the Series B Preferred Stock is redeemed under Section 6 or (ii) in the specific circumstance set forth in Section 2.21(e)(iii) regarding payment to the holders of Series B Preferred Stock of not less than the Series B Redemption Price, including without limitation in connection with a Sale of the Company. In the event any shares of Series B Preferred Stock are converted into Class A Common Stock prior to the redemption of the Series B Preferred Stock or a Deemed Liquidation Event, then such Series B Preferred Stock shall not be entitled to receive any Series B Accruing Dividends. The "**Series B Original Issue Price**" shall mean $0.6562 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series B Preferred Stock. The Series D Accruing Dividend, the Series C Accruing Dividends and the Series B Accruing Dividends shall be collectively referred to as "Accruing Dividends".

1.4 All Other Dividends. Except for the Accruing Dividends payable to the holders of Series D Preferred Stock, the Series C Preferred Stock and the Series B Preferred Stock, the holders of the Common Stock and the Preferred Stock shall be entitled to receive dividends on a pan passu basis according to the number of shares of Common Stock and Common Stock into which the Preferred Stock is then convertible, as applicable. Such dividends shall be payable only when, as and if declared by the Board of Directors of the Corporation (the "**Board of Directors**").

2. Liquidation, Dissolution or Winding Up; Certain Mergers, Consolidations and Asset Sales.

2.1 Preferential Payments to Holders of Preferred Stock.

(a) Series D Preferred Stock Liquidation Preference. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event ("collectively, a "**Liquidation Event**"), the holders of shares of Series D Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Series C Preferred Stock, the holders of Series B Preferred Stock, to the holders of Series A Preferred Stock and to the holders of Common Stock or any securities convertible into Series C Preferred Stock, Series B Preferred Stock, Series A Preferred Stock or Common Stock by reason of their ownership thereof, an amount per share equal to the Series D Original Issue Price, plus the Series D Accruing Dividend (whether or not declared), and, without duplication, any dividends declared but unpaid thereon (the amount payable pursuant to this sentence is hereinafter referred to as the "**Series D Liquidation Amount**"). If upon any Liquidation Event, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series D Preferred Stock the Series D Liquidation Amount, the holders of shares of Series D Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares of Series D Preferred held by them upon such distribution if all amounts payable on or with respect to such shares of Series D Preferred were paid in full.

(b) Series C Preferred Stock Liquidation Preference. Upon the completion of, and subject to, the distributions required by Section 2.1(a) above to the holders of Series D Preferred Stock, in the event of any Liquidation Event, the holders of shares of Series C Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Series B Preferred Stock, to the holders of Series A Preferred Stock and to the holders of Common Stock or any securities convertible into Series B Preferred Stock, Series A Preferred Stock or Common Stock by reason of their ownership thereof, an amount per share equal to the Series C Original Issue Price, plus the Series C Accruing Dividend (whether or not declared), and, without duplication, any dividends declared but unpaid thereon (the amount payable pursuant to this sentence is hereinafter referred to as the "**Series C Liquidation Amount**"). If upon any such Liquidation Event, the assets of the Corporation available for distribution to its stockholders, after payment of the Series D Liquidation Amount owed to the holders of Series D Preferred Stock, shall be insufficient to pay the holders of shares of Series C Preferred Stock the Series C Liquidation Amount, the holders of shares of Series C Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(c) Series B Preferred Stock Liquidation Preference. Upon the completion of, and subject to, the distributions required by Section 2.1(a) to the holders of Series D Preferred Stock and Section 2.1(b) to the holders of Series C Preferred Stock, in the event of any Liquidation Event, the holders of shares of Series B Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Series A Preferred Stock and to the holders of Common Stock or any securities convertible into Series A Preferred Stock or Common Stock by reason of their ownership thereof, an amount per share equal to the Series B Original Issue Price, plus the Series B Accruing Dividend (whether or not declared), and, without duplication, any dividends declared but unpaid thereon (the amount payable pursuant to this sentence is hereinafter referred to as the "**Series B Liquidation Amount**"). If upon any such Liquidation Event, the assets of the Corporation available for distribution to its stockholders, after payment of the Series D Liquidation Amount owed to the holders of Series D Preferred Stock and the Series C Liquidation Amount owed to the holders of Series C Preferred Stock, shall be insufficient to pay the holders of shares of Series B Preferred Stock the Series B Liquidation Amount, the holders of shares of Series B Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(d) Series A Preferred Stock Liquidation Preference. Upon the completion of, and subject to, the distributions required by Section 2.1(a) to the holders of Series D Preferred Stock, Section 2.1(b) to the holders of Series C Preferred Stock and Section 2.1(c) to the holders of Series B Preferred Stock, in the event of any Liquidation Event, the holders of shares of Series A Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Common Stock by reason of their ownership thereof, an amount per share equal to $0.25 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A Preferred Stock) (the "**Series A Original Issue Price**"), plus any dividends declared but unpaid thereon (the amount payable pursuant to this sentence is hereinafter referred to as the "**Series A Liquidation Amount**"). If upon any Liquidation Event, the remaining assets of the Corporation available for distribution to its stockholders, after payment of the Series D Liquidation Amount owed to the holders of Series D Preferred Stock, after payment of the Series C Liquidation Amount owed to the holders of Series C Preferred Stock and the Series B Liquidation Amount owed to the holders of Series B Preferred Stock, shall be insufficient to pay the holders of shares of Series A Preferred Stock the Series A Liquidation Amount, the holders of shares of Series A Preferred Stock shall share ratably in any distribution of the remaining assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(e) Notwithstanding Sections 2.1(a), (b), (c) and (d), and Section 2.2, (i) with respect to the Series D Preferred Stock, if the aggregate amount payable to the holders of Series D Preferred Stock with respect to such share as Series D Liquidation Amount pursuant to Sections 2.1(a) and Series D Participation Amount pursuant to Section 2.2 would be less than the Series D Redemption Price (as defined below), then the holders of Series D Preferred Stock shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Series C Preferred Stock, Series B Preferred Stock, Series A Preferred Stock or Common Stock pursuant to Sections 2.1(b), (c), (d) and 2.2 an amount per share equal to the Series D Redemption Price and no other amount; (ii) upon the completion of, and subject to, the distributions required by Section 2.1(a) and 2.2, on the one hand, or Section 2.1(e)(i) on the other hand, to the holders of Series D Preferred Stock, with respect to the Series C Preferred Stock, if the aggregate amount payable to the holders of Series C Preferred Stock with respect to such share as Series C Liquidation Amount pursuant to Sections 2.1(b) and Series C Participation Amount pursuant to Section 2.2 would be less than the Series C Redemption Price (as defined below), then such holder of Series C Preferred Stock shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Series B Preferred Stock, Series A Preferred Stock or Common Stock pursuant to Sections 2.1(c), (d) and 2.2 an amount per share equal to the Series C Redemption Price and no other amount; (iii) upon the completion of, and subject to, the distributions required by Section 2.1(a), (b) and 2.2, on the one hand, or Section 2.1(e)(i) and (ii), on the other hand, to the holders of Series D Preferred Stock and Series C Preferred Stock, with respect to the Series B Preferred Stock, if the aggregate amount payable to the holders of Series B Preferred Stock with respect to such share as Series B Liquidation Amount pursuant to Sections 2.1(c) and as Series B Participation Amount pursuant to Section 2.2 would be less than the Series B Redemption Price (as defined below), then such holder of Series B Preferred Stock shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Series A Preferred Stock as Series A Liquidation Amount pursuant to Sections 2.1(d) and as Series A Participation Amount pursuant to Section 2.2 or the Common Stock pursuant to Section 2.2 an amount per share equal to the Series B Redemption Price and no other amount; and (iv) if distributions are made pursuant to Section 2.1(e)(i), Section 2.1(e)(ii) and Section 2.1(e)(iii), the remaining assets of the Corporation available for distribution to its stockholders shall be distributed among the holders of shares of Series A Preferred Stock and Common Stock pro rata based on the number of shares held by each such holder, with the shares of Series A Preferred Stock being treated for this purpose as if they have been converted to shares of Common Stock at the then applicable conversion rate.

2.2 Remaining Assets. In the event of any Liquidation Event, after the payment of all preferential amounts required to be paid to (i) the holders of shares of Series D Preferred Stock pursuant to Section 2.1(a) above, (ii) the holders of shares of Series C Preferred Stock pursuant to Section 2.1(b) above, (iii) the holders of shares of Series B Preferred Stock pursuant to Section 2.1(c) above, and (iv) the holders of shares of Series A Preferred Stock pursuant to Section 2.1(d) above, the remaining assets of the Corporation available for distribution to its stockholders shall be distributed among the holders of shares of Preferred Stock and Common Stock pro rata based on the number of shares held by each such holder, with the shares of Preferred Stock being treated for this purpose as if they have been converted to shares of Common Stock at the then applicable conversion rate (the pro rata portion of the remaining assets of the Corporation payable to the Series D Preferred Stock pursuant to the foregoing, hereinafter referred to as the "Series D Participation Amount"; the pro rata portion of the remaining assets of the Corporation payable to the Series C Preferred Stock pursuant to the foregoing, hereinafter referred to as the "Series C Participation Amount"; the pro rata portion of the remaining assets of the Corporation payable to the Series B Preferred Stock pursuant to the foregoing, hereinafter referred to as the "Series B Participation Amount", and the pro rata portion of the remaining assets of the Corporation payable to the Series A Preferred Stock pursuant to the foregoing, hereinafter referred to as the "Series A Participation Amount").

2.3 Deemed Liquidation Events.

2.3.1 Definition. Each of the following events shall be considered a "**Deemed Liquidation Event**" unless the holders of Series D Preferred Stock, the holders of Series C Preferred Stock and the holders of Series B Preferred Stock representing at least two-thirds (2/3) of the voting power of the outstanding shares of Series D Preferred Stock, Series C Preferred Stock and Series B Preferred Stock, voting together as a single class on an as-converted to Common Stock basis, elect otherwise by written notice sent to the Corporation at least three (3) days prior to the effective date of any applicable event:

(a) a merger or consolidation in which

(i) the Corporation is a constituent party or

(ii) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation, except any such merger or consolidation involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, a majority, by voting power, of the capital stock of (1) the surviving or resulting corporation; or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation;

(b) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole, or the sale or disposition (whether by merger, consolidation or otherwise) of one or more subsidiaries of the Corporation if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Corporation; or

(c) the sale or transfer by the Corporation or its security holders to a single person or group of affiliated persons, in a single transaction or series of related transactions, of capital stock or convertible debt securities representing a majority of the combined voting power of the then-outstanding securities of the Corporation.

2.3.2 Effecting a Deemed Liquidation Event.

(a) The Corporation shall not have the power to effect a Deemed Liquidation Event referred to in Section 2.3.1(a)(i) unless the agreement or plan of merger or consolidation for such transaction (the "**Merger Agreement**") provides that the consideration payable to the stockholders of the Corporation shall be allocated among the holders of capital stock of the Corporation in accordance with Sections 2.1 and 2.2.

(b) In the event of a Deemed Liquidation Event referred to in Section 2.3.1(a)(ii), 2.3.1(b) or 2.3.1(c), if the Corporation does not effect a dissolution of the Corporation under the General Corporation Law within ninety (90) days after such Deemed Liquidation Event, then (i) the Corporation shall send a written notice to each holder of Series D Preferred Stock, Series C Preferred Stock and Series B Preferred Stock no later than the ninetieth (90th) day after the Deemed Liquidation Event advising such holders of their right to require the distribution of the Available Proceeds (as defined below) pursuant to the terms of the following clause (ii); and (ii) if the holders of Series D Preferred Stock, Series C Preferred Stock and Series B Preferred Stock representing two-thirds (2/3) of the voting power of the then outstanding shares of Series D Preferred Stock, Series C Preferred Stock and Series B Preferred Stock, voting together on an as-converted to Common Stock basis, so request in a written instrument delivered to the Corporation not later than one hundred twenty (120) days after such Deemed Liquidation Event, the Corporation shall use the consideration received by the Corporation for such Deemed Liquidation Event (net of any retained liabilities associated with the assets sold or technology licensed, as determined in good faith by the Board of Directors), together with any other assets of the Corporation available for distribution to its stockholders, all to the extent permitted by Delaware law governing distributions to stockholders (the "**Available Proceeds**"), on the one hundred fiftieth (150th) day after such Deemed Liquidation Event, to distribute to the stockholders the Available Proceeds in accordance with Sections 2.1 and 2.2 hereof. Prior to the distribution provided for in this Section 2.3.2(b) the Corporation shall not expend or dissipate the consideration received for such Deemed Liquidation Event, except to discharge expenses incurred in connection with such Deemed Liquidation Event or in the ordinary course of business.

2.3.3 Amount Deemed Paid or Distributed. The amount deemed paid or distributed to the holders of capital stock of the Corporation upon any such merger, consolidation, sale, transfer, exclusive license, other disposition or redemption shall be the cash or the value of the property, rights or securities paid or distributed to such holders by the Corporation or the acquiring person, firm or other entity. The value of such property, rights or securities shall be determined in good faith by the Board of Directors.

2.3.4 Allocation of Escrow and Contingent Consideration. In the event of a Deemed Liquidation Event pursuant to Section 2.3.1(a)(i), if any portion of the consideration payable to the stockholders of the Corporation is payable only upon satisfaction of contingencies (the "**Additional Consideration**"), the Merger Agreement shall provide that (a) the portion of such consideration that is not Additional Consideration (such portion, the "**Initial Consideration**") shall be allocated among the holders of capital stock of the Corporation in accordance with Sections 2.1 and 2.2 as if the Initial Consideration were the only consideration payable in connection with such Deemed Liquidation Event; and (b) any Additional Consideration which becomes payable to the stockholders of the Corporation upon satisfaction of such contingencies shall be allocated among the holders of capital stock of the Corporation in accordance with Sections 2.1 and 2.2 after taking into account the previous payment of the Initial Consideration as part of the same transaction. For the purposes of this Section 2.3.4, consideration placed into escrow or retained as holdback to be available for satisfaction of indemnification or similar obligations in connection with such Deemed Liquidation Event shall be deemed to be Additional Consideration.

3. Voting.

3.1 General.

3.1.1 On any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Class A Common Stock into which the shares of Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of the Certificate of Incorporation, holders of Preferred Stock shall vote together with the holders of Class A Common Stock as a single class on an as-if-converted to Common Stock basis. With respect to the Common Stock:

3.1.2 Each holder of shares of Class A Common Stock shall be entitled to one vote for each share thereof held.

3.1.3 Except as required by the General Corporation Law of the State of Delaware and pursuant to Section 3.2 below, holders of Class B Common Stock shall not be entitled to vote on any matter presented to the stockholders of the Corporation.

3.2 Number of Directors and Election of Directors. The exact number of directors on the Board of Directors shall be eight (8). For so long as at least 1,000,000 shares of Series D Preferred Stock remain outstanding (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series D Preferred Stock), the holders of record of the shares of Series D Preferred Stock, exclusively and as a separate class, shall be entitled to elect two (2) directors of the Corporation; for so long as at least 1,000,000 shares of Series C Preferred Stock remain outstanding (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series C Preferred Stock), the holders of record of the shares of Series C Preferred Stock, exclusively and as a separate class, shall be entitled to elect three (3) directors of the Corporation; for so long as at least 1,000,000 shares of Series B Preferred Stock remain outstanding (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series B Preferred Stock), the holders of record of the shares of Series B Preferred Stock, exclusively and as a separate class, shall be entitled to elect one (I) director of the Corporation; the holders of record of the shares of Class A Common Stock and Class B Common Stock, voting together as a single class, shall be entitled to elect one (1) director of the Corporation, and the chief executive officer of the Corporation shall serve as a director of the Corporation, to be elected by the holders of Class A Common Stock, Class B Common Stock and Preferred Stock voting together as a single class on an as-converted to Common Stock basis. Any director elected as provided in the preceding sentence may be removed only by the affirmative vote of the holders of the shares of the class or series of capital stock entitled to elect such director or directors, given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of stockholders. Except as otherwise provided in this Section 3.2, a vacancy in any directorship filled by the holders of any class or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such class or series or by any remaining director or directors elected by the holders of such class or series pursuant to this Section 3.2, if any. If the holders of shares of Preferred Stock or Common Stock, as the case may be, fail to elect a sufficient number of directors to fill all directorships for which they are entitled to elect directors, voting exclusively and as a separate class, pursuant to the first sentence of this Section 3.2, then any directorship not so filled shall remain vacant until such time as the holders of the Preferred Stock or Common Stock, as the case may be, elect a person to fill such directorship by vote or written consent in lieu of a meeting; and no such directorship may be filled by stockholders of the Corporation other than by the stockholders of the Corporation that are entitled to elect a person to fill such directorship, voting exclusively and as a separate class. At any meeting held for the purpose of electing a director, the presence in person or by proxy of the holders of a majority of the outstanding shares of the class or series entitled to elect such director shall constitute a quorum for the purpose of electing such director.

3.3 Protective Provisions. At any time when at least twenty-five percent (25%) of the shares of Series D Preferred Stock, Series C Preferred Stock and Series B Preferred Stock issued as of the Series D Original Issue Date (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the applicable series of Preferred Stock) are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by law or the Certificate of Incorporation) the written consent or affirmative vote of the holders of shares of Series D Preferred Stock, Series C Preferred Stock and Series B Preferred Stock representing at least two-thirds (2/3) of the voting power of the then outstanding shares of Series D Preferred Stock, Series C Preferred Stock and Series 13 Preferred Stock, voting together as a single class on an as-converted to Common Stock basis, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class, and any such act or transaction entered into without such consent or vote shall be null and void ab initio, and of no force or effect:

3.3.1 liquidate, dissolve or wind-up the business and affairs of the Corporation, effect any merger or consolidation or any other Deemed Liquidation Event, or consent to any of the foregoing;

3.3.2 amend, alter or repeal any provision of the Certificate of Incorporation or Bylaws of the Corporation;

3.3.3 create, or authorize the creation of, or issue or obligate itself to issue shares of, or securities exercisable or convertible into, any additional class or series of capital stock not existing as of the Series D Original Issue Date, or increase the authorized number of shares of any class or series of capital stock;

3.3.4 purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare any dividend or make any distribution on, any shares of capital stock of the Corporation other than (i) redemptions of or dividends or distributions on the Series D Preferred Stock, Series C Preferred Stock or the Series B Preferred Stock as expressly authorized herein, (ii) dividends or other distributions payable on the Common Stock solely in the form of additional shares of Common Stock and (iii) repurchases of stock from former employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service at the original purchase price or the then-current fair market value thereof;

3.3.5 incur debt in excess of $250,000, except as otherwise approved by the Board of Directors (which amount includes all debt of the Corporation outstanding at the Series D Original Issue Date);

3.3.6 create, or hold capital stock in, any subsidiary that is not wholly owned (either directly or through one or more other subsidiaries) by the Corporation, or sell, transfer or otherwise dispose of any capital stock of any direct or indirect subsidiary of the Corporation, or permit any direct or indirect subsidiary to sell, lease, transfer, exclusively license or otherwise dispose (in a single transaction or series of related transactions) of all or substantially all of the assets of such subsidiary;

3.3.7 create or adopt, or increase the number of shares of Common Stock reserved for issuance under any equity incentive plan in excess of 11,527,008 shares of Common Stock (the "**Option Plan Pool Amount**");

3.3.8 sell, lease, transfer, license or pledge any assets of the Corporation or subsidiary of the Corporation of a value of at least $500,000 (in a single transaction or series of related transactions); other than in the ordinary course of business of the Corporation and as approved by the Board of Directors; or

3.3.9 increase or decrease the authorized number of directors constituting the Board of Directors.

3.4 Series D Preferred Stock Protective Provisions. At any time when at least twenty-five percent (25%) of the shares of Series D Preferred Stock issued as of the Series D Original Issue Date (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series D Preferred Stock) are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by law or the Certificate of incorporation) the written consent or affirmative vote of the holders of shares of Series D Preferred Stock representing at least two-thirds (2/3) of the voting power of the then outstanding shares of Series D Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class, and any such act or transaction entered into without such consent or vote shall be null and void ab initio, and of no force or effect:

3.4.1 take any action that adversely affects the powers, preferences or rights of the Series D Preferred Stock;

3.4.2 increase or decrease (other than for decreases resulting from conversion of the Series D Preferred Stock) the authorized number of shares of Series D Preferred Stock;

3.4.3 (i) reclassify, alter or amend any existing security of the Corporation that is pari passu with the Series D Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to the Series D Preferred Stock in respect of any such right, preference, or privilege or (ii) reclassify, alter or amend any existing security of the Corporation that is junior to the Series D Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or pari passu with the Series D Preferred Stock in respect of any such right, preference or privilege; or

3.4.4 create, or authorize the creation of, or issue or obligate itself to issue shares of, or securities exercisable or convertible into, any additional class or series of capital stock unless the same ranks junior to the Series D Preferred Stock with respect to the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends and rights of redemption.

3.5 Series C Preferred Stock Protective Provisions. At any time when at least twenty-five percent (25%) of the shares of Series C Preferred Stock issued as of the Series C Original Issue Date (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series C Preferred Stock) are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by law or the Certificate of Incorporation) the written consent or affirmative vote of the holders of shares of Series C Preferred Stock representing at least two-thirds (2/3) of the voting power of the then outstanding shares of Series C Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class, and any such act or transaction entered into without such consent or vote shall be null and void ab initio, and of no force or effect:

3.5.1 take any action that adversely affects the powers, preferences or rights of the Series C Preferred Stock;

3.5.2 increase or decrease (other than for decreases resulting from conversion of the Series C Preferred Stock) the authorized number of shares of Series C Preferred Stock; or

3.5.3 (i) reclassify, alter or amend any existing security of the Corporation that is pari passu with the Series C Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to the Series C Preferred Stock in respect of any such right, preference, or privilege or (ii) reclassify, alter or amend any existing security of the Corporation that is junior to the Series C Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or pari passu with the Series C Preferred Stock in respect of any such right, preference or privilege.

3.6 Series B Preferred Stock Protective Provisions. At any time when at least twenty-five percent (25%) of the shares of Series B Preferred Stock issued as of the Series B Original Issue Date (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series B Preferred Stock) are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by law or the Certificate of Incorporation) the written consent or affirmative vote of the holders of shares of Series B Preferred Stock representing a majority of the voting power of the then outstanding shares of Series B Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class, and any such act or transaction entered into without such consent or vote shall be null and void ab Indio, and of no force or effect;

3.6.1 take any action that adversely affects the powers, preferences or rights of the Series B Preferred Stock;

3.6.2 increase or decrease (other than for decreases resulting from conversion of the Series B Preferred Stock) the authorized number of shares of Series B Preferred Stock; or

3.6.3 (i) reclassify, alter or amend any existing security of the Corporation that is pari passu with the Series B Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to the Series B Preferred Stock in respect of any such right, preference, or privilege or (ii) reclassify, alter or amend any existing security of the Corporation that is junior to the Series B Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or pari passu with the Series B Preferred Stock in respect of any such right, preference or privilege.

4. Optional Conversion.

The holders of the Preferred Stock shall have conversion rights as follows (the "**Conversion Rights**"):

4.1 Right to Convert.

4.1.1 Series D Conversion Ratio. Each share of Series D Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and non-assessable shares of Class A Common Stock as is determined by dividing the Series D Original Issue Price by the Series D Conversion Price (as defined below) in effect at the time of conversion. The "**Series D Conversion Price**" shall initially be equal to $1.5253. Such initial Series D Conversion Price, and the rate at which shares of Series D Preferred Stock may be converted into shares of Class A Common Stock, shall be subject to adjustment as provided below.

4.1.2 Series C Conversion Ratio. Each share of Series C Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and non-assessable shares of Class A Common Stock as is determined by dividing the Series C Original Issue Price by the Series C Conversion Price (as defined below) in effect at the time of conversion. The "**Series C Conversion Price**" shall initially be equal to $0.9539. Such initial Series C Conversion Price, and the rate at which shares of Series C Preferred Stock may be converted into shares of Class A Common Stock, shall be subject to adjustment as provided below.

4.1.3 Series B Conversion Ratio. Each share of Series B Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and non-assessable shares of Class A Common Stock as is determined by dividing the Series B Original Issue Price by the Series B Conversion Price (as defined below) in effect at the time of conversion. The "**Series B Conversion Price**" shall initially be equal to $0.6562. Such initial Series B Conversion Price, and the rate at which shares of Series B Preferred Stock may be converted into shares of Class A Common Stock, shall be subject to adjustment as provided below.

4.1.4 Series A Conversion Ratio. Each share of Series A Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and non-assessable shares of Class A Common Stock as is determined by dividing the Series A Original Issue Price by the Series A Conversion Price (as defined below) in effect at the time of conversion. The "**Series A Conversion Price**" shall initially be equal to $0.25. Such initial Series A Conversion Price, and the rate at which shares of Series A Preferred Stock may be converted into shares of Class A Common Stock, shall be subject to adjustment as provided below.

The respective conversion price at the time of conversion of the Series D Preferred Stock, the Series C Preferred Stock, the Series B Preferred Stock or the Series A Preferred Stock, as applicable, shall be defined as the "**Conversion Price**".

4.1.5 Termination of Conversion Rights. In the event of a notice of redemption of any shares of Series D Preferred Stock, Series C Preferred Stock or Series B Preferred Stock pursuant to Section 6, the Conversion Rights of the shares designated for redemption shall terminate at the close of business on the last full day preceding the date fixed for redemption, unless the redemption price is not nifty paid on such redemption date, in which case the Conversion Rights for such shares shall continue until such price is paid in full. In the event of a Liquidation Event, the Conversion Rights shall terminate at the close of business on the last full day preceding the date fixed for the payment of any such amounts distributable on such event to the holders of Series D Preferred Stock, Series C Preferred Stock, Series B Preferred Stock or Series A Preferred Stock.

4.2 Fractional Shares. No fractional shares of Class A Common Stock shall be issued upon conversion of the Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the fair market value of a share of Class A Common Stock as determined in good faith by the Board of Directors. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of Preferred Stock the holder is at the time converting into Class A Common Stock and the aggregate number of shares of Class A Common Stock issuable upon such conversion.

4.3 Mechanics of Conversion.

4.3.1 Notice of Conversion. In order for a holder of Preferred Stock to voluntarily convert shares of Preferred Stock into shares of Class A Common Stock, such holder shall (a) provide written notice to the Corporation's transfer agent at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent) that such holder elects to convert all or any number of such holder's shares of Preferred Stock and, if applicable, any event on which such conversion is contingent and (b) if such holder's shares are certificated, surrender the certificate or certificates for such shares of Preferred Stock (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate), at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent). Such notice shall state such holder's name or the names of the nominees in which such holder wishes the shares of Class A Common Stock to be issued. If required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or his, her or its attorney duly authorized in writing. The close of business on the date of receipt by the transfer agent (or by the Corporation if the Corporation serves as its own transfer agent) of such notice and, if applicable, certificates (or lost certificate affidavit and agreement) shall be the time of conversion (the "**Conversion Time**"), and the shares of Class A Common Stock issuable upon conversion of the specified shares shall be deemed to be outstanding of record as of such date. The Corporation shall, as soon as practicable after the Conversion Time, (i) issue and deliver to such holder of Preferred Stock, or to his, her or its nominees, a certificate or certificates for the number of full shares of Class A Common Stock issuable upon such conversion in accordance with the provisions hereof and a certificate for the number (if any) of the shares of Preferred Stock represented by the surrendered certificate that were not converted into Class A Common Stock, (ii) pay in cash such amount as provided in Section 4.2 in lieu of any fraction of a share of Class A Common Stock otherwise issuable upon such conversion and (iii) pay all declared but unpaid dividends on the shares of Preferred Stock converted (other than Series D Accruing Dividends, Series C Accruing Dividends and the Series B Accruing Dividends).

4.3.2 Reservation of Shares. The Corporation shall at all times when the shares of Preferred Stock shall be outstanding, reserve and keep available out of its authorized but unissued capital stock, for the purpose of effecting the conversion of the Preferred Stock, such number of its duly authorized shares of Class A Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of Preferred Stock; and if at any time the number of authorized but unissued shares of Class A Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Corporation shall take such corporate action as may be necessary to increase its authorized but unissued shares of Class A Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to the Certificate of Incorporation. Before taking any action which would cause an adjustment reducing the Conversion Price below the then par value of the shares of Class A Common Stock issuable upon conversion of the Preferred Stock, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and non-assessable shares of Class A Common Stock at such adjusted Conversion Price.

4.3.3 Effect of Conversion. All shares of Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares shall immediately cease and terminate at the Conversion Time, except only the right of the holders thereof to receive shares of Class A Common Stock in exchange therefor, to receive payment in lieu of any fraction of a share otherwise issuable upon such conversion as provided in Section 4.2 and to receive payment of any dividends declared but unpaid thereon (other than any Series D Accruing Dividends, Series C Accruing Dividends and Series B Accruing Dividends). Any shares of Preferred Stock so converted shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

4.3.4 No Further Adjustment. Upon any such conversion, no adjustment to the Conversion Price shall be made for any declared but unpaid dividends on the Preferred Stock surrendered for conversion or on the Class A Common Stock delivered upon conversion.

4.3.5 Taxes. The Corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of Class A Common Stock upon conversion of shares of Preferred Stock pursuant to this Section 4. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Class A Common Stock in a name other than that in which the shares of Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

4.4 Adjustments to Conversion Price for Diluting Issues.

4.4.1 Special Definitions. For purposes of this Article Fourth, the following definitions shall apply:

(a) "**Additional Shares of Common Stock**" shall mean all shares of Common Stock issued (or, pursuant to Section 4.4.3 below, deemed to be issued) by the Corporation after the Series D Original Issue Date, other than (1) the following shares of Common Stock and (2) shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (clauses (1) and (2), collectively, "**Exempted Securities**"):

(i) shares of Common Stock, Options or Convertible Securities issued as a dividend or distribution on Preferred Stock;

(ii) shares of Common Stock, Options or Convertible Securities issued by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Section 4.5, 4.6, 4.7 or 4.8;

(iii) shares of Common Stock or Options issued to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement, not to exceed the Option Plan Pool Amount, approved by the Board of Directors;

(iv) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options or shares of Common Stock actually issued upon the conversion or exchange of Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security outstanding as of the Series D Original Issue Date;

(v) shares of Common Stock, Options or Convertible Securities issued to banks, equipment lessors or other financial institutions, or to real property lessors, in each case, that are unaffiliated with the Corporation, pursuant to a debt financing, equipment leasing or real property leasing transaction approved by the Board of Directors; or

(vi) shares of Common Stock, Options or Convertible Securities issued for consideration other than cash pursuant to the acquisition of another entity by the Corporation by merger, purchase of substantially all of the assets or other reorganization or to a joint venture agreement, provided that such issuances are approved by the Board of Directors.

(b) "Convertible Securities" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

(c) "Option" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(d) "Series B Original Issue Date" shall mean the date on which the first share of Series B Preferred Stock was issued.

(e) "Series C Original Issue Date" shall mean the date on which the first share of Series C Preferred Stock was issued.

(f) "Series D Original Issue Date" shall mean the date on which the first share of Series D Preferred Stock was issued.

4.4.2 No Adjustment of Conversion Price. No adjustment in the Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of Preferred Stock representing at least two-thirds (2/3) of the voting power of the then outstanding shares of Preferred Stock (which must include the holders of at least two-thirds (2/3) of the then-outstanding shares of Series D Preferred Stock) agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock. No adjustment in the Conversion Price applicable to a series of Preferred Stock shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of such series of Preferred Stock representing at least two-thirds (2/3) of the voting power of the then outstanding shares of such series of Preferred Stock agreeing that no such adjustment shall be made to the Conversion Price applicable to such series of Preferred Stock as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

4.4.3 Deemed Issue of Additional Shares of Common Stock.

(a) If the Corporation at any time or from time to time after the Series D Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(b) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price pursuant to the terms of Section 4.4.4, are revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the Conversion Price computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Conversion Price, as applicable, as would have obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this clause (b) shall have the effect of increasing the Conversion Price to an amount which exceeds the lower of (i) the Conversion Price, as applicable, in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the Conversion Price, as applicable, that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(c) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price pursuant to the terms of Section 4.4.4 (either because the consideration per share (determined pursuant to Section 4.4.5) of the Additional Shares of Common Stock subject thereto was equal to or greater than the Conversion Price then in effect, or because such Option or Convertible Security was issued before the Original Issue Dates), are revised after the Series D Original Issue Date as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Section 4.4.3(a) shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(d) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price pursuant to the terms of Section 4.4.4 the Conversion Price, as applicable, shall be readjusted to such Conversion Price as would have obtained had such Option or Convertible Security (or portion thereof) never been issued.

(e) If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price provided for in this Section 4.4.3 shall be effected at the time of such issuance or amendment based on such number of shares or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (b) and (c) of this Section 4.4.3). If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price that would result under the terms of this Section 4.4.3 at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to the Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

4.4.4 Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall at any time after the Series D Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 4.4.3), without consideration or for a consideration per share less than the Conversion Price of the Series D Preferred Stock, Series C Preferred Stock, Series B Preferred Stock or the Series A Preferred Stock in effect immediately prior to such issue or deemed issuance, then the applicable Conversion Price shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

$CP_2 = CP_1 * (A + B) \div (A + C)$.

For purposes of the foregoing formula, the following definitions shall apply:

(a) "CP_2" shall mean the Conversion Price in effect immediately after such issue of Additional Shares of Common Stock

(b) "CP_1" shall mean the Conversion Price in effect immediately prior to such issue of Additional Shares of Common Stock;

(c) "A" shall mean the number of shares of Common Stock outstanding immediately prior to such issue of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issue or upon conversion or exchange of Convertible Securities (including the Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);

(d) "B" shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued at a price per share equal to CP_1 (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by CP_1); and

(e) "C" shall mean the number of such Additional Shares of Common Stock issued in such transaction.

4.4.5 Determination of Consideration. For purposes of this Section 4.4, the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(a) Cash and Property: Such consideration shall:

(i) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;

(ii) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors; and

(iii) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (i) and (ii) above, as determined in good faith by the Board of Directors.

(b) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Section 4.4.3, relating to Options and Convertible Securities, shall be determined by dividing:

(i) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(ii) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities.

4.4.6 Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price pursuant to the terms of Section 4.4.4, then, upon the final such issuance, the Conversion Price shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

4.5 Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the Series D Original Issue Date effect a subdivision of the outstanding Common Stock, the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price in effect immediately before that subdivision shall be proportionately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the Series D Original Issue Date combine the outstanding shares of Common Stock, the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price in effect immediately before the combination shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

4.6 Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time or from time to time after the Series D Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable on the Common Stock in additional shares of Common Stock, then and in each such event the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Conversion Price (as applicable for the Series D Preferred Stock, Series C Preferred Stock, Series B Preferred Stock or Series A Preferred Stock) then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution.

Notwithstanding the foregoing, (a) if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price, shall be adjusted pursuant to this subsection as of the time of actual payment of such dividends or distributions; and (b) that no such adjustment shall be made if the holders of the applicable Preferred Stock simultaneously receive a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Preferred Stock had been converted into Common Stock on the date of such event.

4.7 Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Series D Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation (other than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property and the provisions of Section 1 do not apply to such dividend or distribution, then and in each such event the holders of Preferred Stock shall receive, simultaneously with the distribution to the holders of Common Stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of Preferred Stock had been converted into Common Stock on the date of such event.

4.8 Adjustment for Merger or Reorganization, etc. Subject to the provisions of Section 2.3, if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not the Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Sections 4.4, 4.6 or 4.7), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Preferred Stock shall thereafter be convertible in lieu of the Common Stock into which it was convertible prior to such event into the kind and amount of securities, cash or other property which a holder of the number of shares of Common Stock of the Corporation issuable upon conversion of one share of Preferred Stock immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board of Directors) shall be made in the application of the provisions in this Section 4 with respect to the rights and interests thereafter of the holders of the Preferred Stock, to the end that the provisions set forth in this Section 4 (including provisions with respect to changes in and other adjustments of the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the Preferred Stock. For the avoidance of doubt, nothing in this Section 4.8 shall be construed as preventing the holders of Preferred Stock from seeking any appraisal rights to which they are otherwise entitled under the General Corporation Law in connection with a merger triggering an adjustment hereunder, nor shall this Section 4.8 be deemed conclusive evidence of the fair value of the shares of Preferred Stock in any such appraisal proceeding.

4.9 Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price pursuant to this Section 4, the Corporation at its expense shall, as promptly as reasonably practicable but in any event not later than ten (10) days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of Preferred Stock a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property into which the Preferred Stock is convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, as promptly as reasonably practicable after the written request at any time of any holder of Preferred Stock (but in any event not later than ten (10) days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the Series A Conversion Price, Series B Conversion Price, Series C Conversion Price or Series D Conversion Price then in effect and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the conversion of each series of Preferred Stock.

4.10 Notice of Record Date. In the event:

(a) the Corporation shall take a record of the holders of its Common Stock (or other capital stock or securities at the time issuable upon conversion of the Preferred Stock) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of capital stock of any class or any other securities, or to receive any other security; or

(b) of any capital reorganization of the Corporation, any reclassification of the Common Stock of the Corporation, or any Deemed Liquidation Event; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Corporation, then, and in each such case, the Corporation will send or cause to be sent to the holders of the Preferred Stock a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other capital stock or securities at the time issuable upon the conversion of the Preferred Stock) shall be entitled to exchange their shares of Common Stock (or such other capital stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up, and the amount per share and character of such exchange applicable to the each series of Preferred Stock and the Common Stock. Such notice shall be sent at least ten (10) days prior to the record date or effective date for the event specified in such notice.

5. Mandatory Conversion.

5.1 Automatic Conversion. Upon either (a) the closing of the sale of shares of Common Stock to the public at a price of at least $3.05 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock), in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, resulting in at least $50,000,000 of gross proceeds to the Corporation and in connection with such offering the Common Stock is listed for trading on the Nasdaq Stock Market's National Market or the New York Stock Exchange (a "**Qualified IPO**") or (b) the date and time, or the occurrence of an event, specified by vote or written consent of the holders of shares of Series D Preferred Stock representing two-thirds (2/3) of the voting power of the then outstanding shares of Series D Preferred Stock, voting together as a separate class (the time of such closing in clause (a) or the date and time specified or the time of the event specified in such vote or written consent in clause (b) is referred to herein as the "**Mandatory Conversion Time**"), then (i) all outstanding shares of Preferred Stock shall automatically be converted into shares of Class A Common Stock, at the then effective conversion rate as calculated pursuant to Section 4.1.1 and (ii) such shares may not be reissued by the Corporation.

5.2 Procedural Requirements. All holders of record of shares of Preferred Stock subject to mandatory conversion shall be sent written notice of the Mandatory Conversion Time and the place designated for mandatory conversion of all such shares of Preferred Stock pursuant to this Section 5. Such notice need not be sent in advance of the occurrence of the Mandatory Conversion Time. Upon receipt of such notice, each holder of shares of Preferred Stock in certificated form shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice. If so required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. All rights with respect to the Preferred Stock converted pursuant to Section 5.1, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate at the Mandatory Conversion Time (notwithstanding the failure of the holder or holders thereof to surrender any certificates at or prior to such time), except only the rights of the holders thereof, upon surrender of any certificate or certificates of such holders (or lost certificate affidavit and agreement) therefor, to receive the items provided for in the next sentence of this Section 5.2. As soon as practicable after the Mandatory Conversion Time and, if applicable, the surrender of any certificate or certificates (or lost certificate affidavit and agreement) for Preferred Stock, the Corporation shall (a) issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof and (b) pay cash as provided in Section 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and the payment of any declared but unpaid dividends on the shares of Preferred Stock converted. Such converted Preferred Stock shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock (and any series thereof) accordingly.

6. Redemption of Series D Preferred Stock, Series C Preferred Stock and Series B Preferred Stock.

6.1 General. Unless prohibited by Delaware law governing distributions to stockholders and contingent upon the Corporation having legally available assets to pay the Redemption Price (as defined below), (i) shares of Series D Preferred Stock shall be redeemed by the Corporation at a price equal to the Series D Original Issue Price per share, plus all Series D Accruing Dividends accrued but unpaid thereon, whether or not declared, plus all declared but unpaid other dividends thereon (the "**Series D Redemption Price**"), in two (2) semi-annual installments commencing not more than one hundred eighty (180) days after receipt by the Corporation at any time on or after the fifth (5^{th}) anniversary of the Series D Original Issue Date, from the holders of shares of Series D Preferred Stock representing two-thirds (2/3) of the voting power of the then outstanding shares of Series D Preferred Stock, of written notice requesting redemption of all shares of Series D Preferred Stock (the "**Series D Redemption Request**"), (ii) shares of Series C Preferred Stock shall be redeemed by the Corporation at a price equal to the Series C Original Issue Price per share, plus all Series C Accruing Dividends accrued but unpaid thereon, whether or not declared, plus all declared but unpaid other dividends thereon (the "**Series C Redemption Price**"), in two (2) semi-annual installments commencing not more than one hundred eighty (180) days after receipt by the Corporation at any time on or after the fifth (5th) anniversary of the Series D Original Issue Date, from the holders of shares of Series C Preferred Stock representing two-thirds (2/3) of the voting power of the then outstanding shares of Series C Preferred Stock, of written notice requesting redemption of all shares of Series C Preferred Stock (the "**Series C Redemption Request**"), and (iii) shares of Series B Preferred Stock shall be redeemed by the Corporation at a price equal to the Series B Original Issue Price per share, plus all Series B Accruing Dividends accrued but unpaid thereon, whether or not declared, plus all declared but unpaid other dividends thereon (the "**Series B Redemption Price**" and collectively with the Series D Redemption Price and the Series C Redemption Price, the "**Redemption Price**"), in two (2) semi-annual installments commencing not more than one hundred eighty (180) days after receipt by the Corporation at any time on or after the fifth (5th) anniversary of the Series D Original Issue Date, from the holders of shares of Series B Preferred Stock representing at least a majority of the voting power of the then outstanding shares of Series B Preferred Stock, of written notice requesting redemption of all shares of Series B Preferred Stock (the "Series B Redemption Request" " and collectively with the Series D Redemption Price and the Series C Redemption Request, the "**Redemption Request**"). Upon receipt of a Redemption Request, the Corporation shall apply all necessary assets to any such redemption, and to no other corporate purpose, except to the extent prohibited by Delaware law governing distributions to stockholders. The date of each installment for payment of the Series D Redemption Price shall be referred to as a "Series D Redemption Date", the date of each installment for payment of the Series C Redemption Price shall be referred to as a "Series C Redemption Date", and the date of each installment for payment of the Series B Redemption Price shall be referred to as a "Series B Redemption Date", and collectively with the Series D Redemption Date and the Series C Redemption Date, the "**Redemption Date**"). On each Series D Redemption Date, the Corporation shall redeem, on a pro rata basis, the number of shares of Series D Preferred Stock owned by each holder determined by dividing the total number of shares of Series D Preferred Stock held by such holder outstanding immediately prior to such Series D Redemption Date by the number of remaining Series D Redemption Dates (including the Series D Redemption Date to which such calculation applies), on each Series C Redemption Date, the Corporation shall redeem, on a pro rata basis, the number of shares of Series C Preferred Stock owned by each holder determined by dividing the total number of shares of Series C Preferred Stock held by such holder outstanding immediately prior to such Series C Redemption Date by the number of remaining Series C Redemption Dates (including the Series C Redemption Date to which such calculation applies), and on each Series B Redemption Date, the Corporation shall redeem, on a pro rata basis, the number of shares of Series B Preferred Stock owned by each holder determined by dividing the total number of shares of Series B Preferred Stock held by such holder outstanding immediately prior to such Series B Redemption Date by the number of remaining Series B Redemption Dates (including the Series B Redemption Date to which such calculation applies); provided, however, if at any time the Corporation has received the Series D Redemption Request, the Series C Redemption Request and/or the Series B Redemption Request, then thereafter (i) the Corporation shall pay the Series D Redemption Price to the holders of Series D Preferred Stock in full as set forth in this Section 6.1 before any further payment of the Series C Redemption Price to the holders of Series C Preferred Stock or the Series B Redemption Price to the holders of Series B Preferred Stock may occur and (ii) the Corporation shall pay the Series C Redemption Price to the holders of Series C Preferred Stock in full as set forth in this Section 6.1 before any further payment of the Series B Redemption Price to the holders of Series B Preferred Stock may occur. If on any Redemption Date, Delaware law governing distributions to stockholders prevents the Corporation from redeeming all shares of Series D Preferred Stock, Series C Preferred Stock or Series B Preferred Stock to be redeemed, as applicable, the Corporation shall (i) first redeem on a pro rata basis the maximum number of shares of Series D Preferred Stock that it may redeem consistent with such law and shall redeem the remaining shares of Series D Preferred Stock, (ii) second redeem on a pro rata basis the maximum number of shares of Series C Preferred Stock that it may redeem consistent with such law and shall redeem the remaining shares of Series C Preferred Stock and (iii) third redeem the remaining shares of Series B Preferred Stock as soon as it may lawfully do so under such law.

6.2 Redemption Notice. The Corporation shall send written notice of the mandatory redemption (the "**Redemption Notice**") to each holder of record of Series D Preferred Stock, Series C Preferred Stock or Series B Preferred Stock, as applicable, not less than forty (40) days prior to each Redemption Date. Each Redemption Notice shall state:

(a) the number of shares of Series D Preferred Stock, Series C Preferred Stock or Series B Preferred Stock held by the holder that the Corporation shall redeem on the Redemption Date specified in the Redemption Notice;

(b) the Redemption Date and the Redemption Price;

(c) the date upon which the holder's right to convert such shares terminates (as determined in accordance with Section 4.1); and

(d) for holders of shares in certificated form, that the holder is to surrender to the Corporation, in the manner and at the place designated, his, her or its certificate or certificates representing the shares of Series D Preferred Stock, Series C Preferred Stock or Series B Preferred Stock to be redeemed.

6.3 Surrender of Certificates; Payment. On or before the applicable Redemption Date, each holder of shares of Series D Preferred Stock, Series C Preferred Stock or Series B Preferred Stock to be redeemed on such applicable Redemption Date, unless such holder has exercised his, her or its right to convert such shares as provided in Section 4, shall, if a holder of shares in certificated form, surrender the certificate or certificates representing such shares (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation, in the manner and at the place designated in the Redemption Notice, and thereupon the applicable Redemption Price for such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof. In the event less than all of the shares of Series D Preferred Stock, Series C Preferred Stock or Series B Preferred Stock represented by a certificate are redeemed, a new certificate, instrument, or book entry representing the unredeemed shares of Series D Preferred Stock, Series C Preferred Stock or Series 13 Preferred Stock shall promptly be issued to such holder.

6.4 Rights Subsequent to Redemption. If the Redemption Notice shall have been duly given, and if on the applicable Redemption Date the applicable Redemption Price payable upon redemption of the shares of Series D Preferred Stock, Series C Preferred Stock or Series B Preferred Stock to be redeemed on such applicable Redemption Date is paid or tendered for payment or deposited with an independent payment agent so as to be available therefor in a timely manner, then notwithstanding that any certificates evidencing any of the shares of Series D Preferred Stock, Series C Preferred Stock or Series B Preferred Stock so called for redemption shall not have been surrendered, dividends with respect to such shares of Series D Preferred Stock, Series C Preferred Stock or Series B Preferred Stock shall cease to accrue after such Redemption Date and all rights with respect to such shares shall forthwith after the Redemption Date terminate, except only the right of the holders to receive the Redemption Price without interest upon surrender of any such certificate or certificates therefor.

7. Redeemed or Otherwise Acquired Shares. Any shares of Series D Preferred Stock, Series C Preferred Stock or Series B Preferred Stock that are redeemed or otherwise acquired by the Corporation or any of its subsidiaries shall be automatically and immediately cancelled and retired and shall not be reissued, sold or transferred. Neither the Corporation nor any of its subsidiaries may exercise any voting or other rights granted to the holders of Series D Preferred Stock, Series C Preferred Stock or Series B Preferred Stock following redemption.

8. Waivers. Any of the rights, powers, preferences and other terms of the Series D Preferred Stock set forth herein may be waived, either prospectively or retrospectively, on behalf of all holders of Series D Preferred Stock by the affirmative written consent or vote of the holders of Series D Preferred Stock representing two-thirds (2/3) of the voting power of the shares of Series D Preferred Stock then outstanding. Any of the rights, powers, preferences and other terms of the Series C Preferred Stock set forth herein may be waived, either prospectively or retrospectively, on behalf of all holders of Series C Preferred Stock by the affirmative written consent or vote of the holders of Series C Preferred Stock representing two-thirds (2/3) of the voting power of the shares of Series C Preferred Stock then outstanding. Any of the rights, powers, preferences and other terms of the Series B Preferred Stock set forth herein may be waived, either prospectively or retrospectively, on behalf of all holders of Series B Preferred Stock by the affirmative written consent or vote of the holders of Series B Preferred Stock representing a majority of the voting power of the shares of Series B Preferred Stock then outstanding. Any of the rights, powers, preferences and other terms of the Series A Preferred Stock set forth herein may be waived, either prospectively or retrospectively, on behalf of all holders of Series A Preferred Stock by the affirmative written consent or vote of the holders of Series A Preferred Stock representing a majority of the voting power of the shares of Series A Preferred Stock then outstanding.

9. Notices. Any notice required or permitted by the provisions of this Article Fourth to be given to a holder of shares of Preferred Stock shall be mailed, postage prepaid, to the post office address last shown on the records of the Corporation, or given by electronic communication in compliance with the provisions of the General Corporation Law, and shall be deemed sent upon such mailing or electronic transmission.

FIFTH: Subject to any additional vote required by the Certificate of Incorporation or Bylaws, in furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of the Corporation.

SIXTH: Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

SEVENTH: Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws of the Corporation may provide. The books of the Corporation may be kept outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of the Corporation.

EIGHTH: To the fullest extent permitted by law, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. if the General Corporation Law or any other law of the State of Delaware is amended after approval by the stockholders of this Article Eighth to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law as so amended.

Any repeal or modification of the foregoing provisions of this Article Eighth by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director occurring prior to, such repeal or modification.

NINTH: To the fullest extent permitted by applicable law, the Corporation is authorized to provide indemnification of (and advancement of expenses to) directors, officers and agents of the Corporation (and any other persons to which General Corporation Law permits the Corporation to provide indemnification) through Bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by Section 145 of the General Corporation Law.

Any amendment, repeal or modification of the foregoing provisions of this Article Ninth shall not adversely affect any right or protection of any director, officer or other agent of the Corporation existing at the time of such amendment, repeal or modification.

TENTH: The Corporation renounces, to the fullest extent permitted by law, any interest or expectancy of the Corporation in, or in being offered an opportunity to participate in, any Excluded Opportunity. An "**Excluded Opportunity**" is any matter, transaction or interest that is presented to, or acquired, created or developed by, or which otherwise comes into the possession of, (i) any director of the Corporation who is not an employee of the Corporation or any of its subsidiaries, or (ii) any holder of Preferred Stock or any partner, member, director, stockholder, employee or agent of any such holder, other than someone who is an employee of the Corporation or any of its subsidiaries (collectively, "**Covered Persons**"), unless such matter, transaction or interest is presented to, or acquired, created or developed by, or otherwise comes into the possession of, a Covered Person expressly and solely in such Covered Person's capacity as a director of the Corporation.

ELEVENTH: Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery in the State of Delaware shall be the sole and exclusive forum for any stockholder (including a beneficial owner) to bring (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (iii) any action asserting a claim against the Corporation, its directors, officers or employees arising pursuant to any provision of the Delaware General Corporation Law or the Corporation's certificate of incorporation or bylaws or (iv) any action asserting a claim against the Corporation, its directors, officers or employees governed by the internal affairs doctrine, except for, as to each of (i) through (iv) above, any claim as to which the Court of Chancery determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, or for which the Court of Chancery does not have subject matter jurisdiction. If any provision or provisions of this Article Eleventh shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this Article Eleventh (including, without limitation, each portion of any sentence of this Article Eleventh containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

* * *

3. That the foregoing amendment and restatement was approved by the holders of the requisite number of shares of this corporation in accordance with Section 228 of the General Corporation Law.

4. That this Amended and Restated Certificate of Incorporation, which restates and integrates and further amends the provisions of this Corporation's Certificate of Incorporation, has been duly adopted in accordance with Sections 242 and 245 of the General Corporation Law.

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation of Akoya Biosciences, Inc., has been executed by a duly authorized officer of this Corporation on this 26th day of September, 2019.

By: /s/ Brian McKelligon
Brian McKelligon, Chief Executive Officer

Exhibit 3.2

BYLAWS OF

AKOYA BIOSCIENCES, INC.

Adopted November 16, 2015

TABLE OF CONTENTS

TABLE OF CONTENTS
continued

TABLE OF CONTENTS
continued

BYLAWS

ARTICLE I — MEETINGS OF STOCKHOLDERS

1.1 ***Place of Meetings***. Meetings of stockholders of Akoya Biosciences, Inc. (the "**Company**") shall be held at any place, within or outside the State of Delaware, determined by the Company's board of directors (the "**Board**"). The Board may, in its sole discretion, determine that a meeting of stockholders shall not be held at any place, but may instead be held solely by means of remote communication as authorized by Section 211(a)(2) of the Delaware General Corporation Law (the "**DGCL**"). In the absence of any such designation or determination, stockholders' meetings shall be held at the Company's principal executive office.

1.2 ***Annual Meeting***. Unless directors are elected by written consent in lieu of an annual meeting as permitted by Section 211(b) of the DGCL, an annual meeting of stockholders shall be held for the election of directors at such date and time as may be designated by resolution of the Board from time to time. Stockholders may, unless the certificate of incorporation otherwise provides, act by written consent to elect directors; *provided*, *however*, that, if such consent is less than unanimous, such action by written consent may be in lieu of holding an annual meeting only if all of the directorships to which directors could be elected at an annual meeting held at the effective time of such action are vacant and are filled by such action. Any other proper business may be transacted at the annual meeting.

1.3 ***Special Meeting***. A special meeting of the stockholders may be called at any time by the Board, Chairperson of the Board, Chief Executive Officer or President (in the absence of a Chief Executive Officer) or by one or more stockholders holding shares in the aggregate entitled to cast not less than 10% of the votes at that meeting.

If any person(s) other than the Board calls a special meeting, the request shall:

(i) be in writing;

(ii) specify the time of such meeting and the general nature of the business proposed to be transacted; and

(iii) be delivered personally or sent by registered mail or by facsimile transmission to the Chairperson of the Board, the Chief Executive Officer, the President (in the absence of a Chief Executive Officer) or the Secretary of the Company.

The officer(s) receiving the request shall cause notice to be promptly given to the stockholders entitled to vote at such meeting, in accordance with these bylaws, that a meeting will be held at the time requested by the person or persons calling the meeting. No business may be transacted at such special meeting other than the business specified in such notice to stockholders. Nothing contained in this paragraph of this **section 1.3** shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board may be held.

1.4 ***Notice of Stockholders' Meetings***. Whenever stockholders are required or permitted to take any action at a meeting, a written notice of the meeting shall be given which shall state the place, if any, date and hour of the meeting, the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, the record date for determining the stockholders entitled to vote at the meeting, if such date is different from the record date for determining stockholders entitled to notice of the meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Except as otherwise provided in the DGCL, the certificate of incorporation or these bylaws, the written notice of any meeting of stockholders shall be given not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting as of the record date for determining the stockholders entitled to notice of the meeting.

1.5 ***Quorum***. Except as otherwise provided by law, the certificate of incorporation or these bylaws, at each meeting of stockholders the presence in person or by proxy of the holders of shares of stock having a majority of the votes which could be cast by the holders of all outstanding shares of stock entitled to vote at the meeting shall be necessary and sufficient to constitute a quorum. Where a separate vote by a class or series or classes or series is required, a majority of the outstanding shares of such class or series or classes or series, present in person or represented by proxy, shall constitute a quorum entitled to take action with respect to that vote on that matter, except as otherwise provided by law, the certificate of incorporation or these bylaws.

If, however, such quorum is not present or represented at any meeting of the stockholders, then either (i) the chairperson of the meeting, or (ii) the stockholders entitled to vote at the meeting, present in person or represented by proxy, shall have the power to adjourn the meeting from time to time, in the manner provided in **section 1.6**, until a quorum is present or represented.

1.6 ***Adjourned Meeting; Notice***. Any meeting of stockholders, annual or special, may adjourn from time to time to reconvene at the same or some other place, and notice need not be given of the adjourned meeting if the time, place, if any, thereof, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the Company may transact any business which might have been transacted at the original meeting. If the adjournment is for more than 30 days, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. If after the adjournment a new record date for stockholders entitled to vote is fixed for the adjourned meeting, the Board shall fix a new record date for notice of such adjourned meeting in accordance with Section 213(a) of the DGCL and **section 1.10** of these bylaws, and shall give notice of the adjourned meeting to each stockholder of record entitled to vote at such adjourned meeting as of the record date fixed for notice of such adjourned meeting.

1.7 ***Conduct of Business***. Meetings of stockholders shall be presided over by the Chairperson of the Board, if any, or in his or her absence by the Vice Chairperson of the Board, if any, or in the absence of the foregoing persons by the Chief Executive Officer, or in the absence of the foregoing persons by the President, or in the absence of the foregoing persons by a Vice President, or in the absence of the foregoing persons by a chairperson designated by the Board, or in the absence of such designation by a chairperson chosen at the meeting. The Secretary shall act as secretary of the meeting, but in his or her absence the chairperson of the meeting may appoint any person to act as secretary of the meeting. The chairperson of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of business.

1.8 ***Voting***. The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of **section 1.10** of these bylaws, subject to Section 217 (relating to voting rights of fiduciaries, pledgors and joint owners of stock) and Section 218 (relating to voting trusts and other voting agreements) of the DGCL.

Except as may be otherwise provided in the certificate of incorporation, each stockholder entitled to vote at any meeting of stockholders shall be entitled to one vote for each share of capital stock held by such stockholder which has voting power upon the matter in question. Voting at meetings of stockholders need not be by written ballot and, unless otherwise required by law, need not be conducted by inspectors of election unless so determined by the holders of shares of stock having a majority of the votes which could be cast by the holders of all outstanding shares of stock entitled to vote thereon which are present in person or by proxy at such meeting. If authorized by the Board, such requirement of a written ballot shall be satisfied by a ballot submitted by electronic transmission (as defined in **section 7.2** of these bylaws), *provided* that any such electronic transmission must either set forth or be submitted with information from which it can be determined that the electronic transmission was authorized by the stockholder or proxy holder.

Except as otherwise required by law, the certificate of incorporation or these bylaws, in all matters other than the election of directors, the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the subject matter shall be the act of the stockholders. Except as otherwise required by law, the certificate of incorporation or these bylaws, directors shall be elected by a plurality of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the election of directors. Where a separate vote by a class or series or classes or series is required, in all matters other than the election of directors, the affirmative vote of the majority of shares of such class or series or classes or series present in person or represented by proxy at the meeting shall be the act of such class or series or classes or series, except as otherwise provided by law, the certificate of incorporation or these bylaws.

1.9 ***Stockholder Action by Written Consent Without a Meeting***. Unless otherwise provided in the certificate of incorporation, any action required by the DGCL to be taken at any annual or special meeting of stockholders of a corporation, or any action which may be taken at any annual or special meeting of such stockholders, may be taken without a meeting, without prior notice, and without a vote, if a consent or consents in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

Every written consent shall bear the date of signature of each stockholder who signs the consent, and no written consent shall be effective to take the corporate action referred to therein unless, within 60 days of the earliest dated consent delivered in the manner required by Section 228 of the DGCL to the Company, written consents signed by a sufficient number of holders to take action are delivered to the Company by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the Company having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to the Company's registered office shall be by hand or by certified or registered mail, return receipt requested. Any person executing a consent may provide, whether through instruction to an agent or otherwise, that such a consent will be effective at a future time (including a time determined upon the happening of an event), no later than 60 days after such instruction is given or such provision is made, and, for the purposes of this **section 1.9**, if evidence of such instruction or provision is provided to the Company, such later effective time shall serve as the date of signature. Unless otherwise provided, any such consent shall be revocable prior to its becoming effective.

An electronic transmission (as defined in **section 7.2**) consenting to an action to be taken and transmitted by a stockholder or proxy holder, or by a person or persons authorized to act for a stockholder or proxy holder, shall be deemed to be written, signed and dated for purposes of this section, *provided* that any such electronic transmission sets forth or is delivered with information from which the Company can determine (1) that the electronic transmission was transmitted by the stockholder or proxy holder or by a person or persons authorized to act for the stockholder or proxy holder and (ii) the date on which such stockholder or proxy holder or authorized person or persons transmitted such electronic transmission.

In the event that the Board shall have instructed the officers of the Company to solicit the vote or written consent of the stockholders of the Company, an electronic transmission of a stockholder written consent given pursuant to such solicitation may be delivered to the Secretary or the President of the Company or to a person designated by the Secretary or the President. The Secretary or the President of the Company or a designee of the Secretary or the President shall cause any such written consent by electronic transmission to be reproduced in paper form and inserted into the corporate records.

Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for notice of such meeting had been the date that written consents signed by a sufficient number of holders to take the action were delivered to the Company as provided in Section 228 of the DGCL. In the event that the action which is consented to is such as would have required the filing of a certificate under any provision of the DGCL, if such action had been voted on by stockholders at a meeting thereof, the certificate filed under such provision shall state, in lieu of any statement required by such provision concerning any vote of stockholders, that written consent has been given in accordance with Section 228 of the DGCL.

1.10 ***Record Dates***. In order that the Company may determine the stockholders entitled to notice of any meeting of stockholders or any adjournment thereof, the Board may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board and which record date shall not be more than 60 nor less than 10 days before the date of such meeting. If the Board so fixes a date, such date shall also be the record date for determining the stockholders entitled to vote at such meeting unless the Board determines, at the time it fixes such record date, that a later date on or before the date of the meeting shall be the date for making such determination.

If no record date is fixed by the Board, the record date for determining stockholders entitled to notice of and to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided*, *however*, that the Board may fix a new record date for determination of stockholders entitled to vote at the adjourned meeting, and in such case shall also fix as the record date for stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote in accordance with the provisions of Section 213 of the DGCL and this Section 1.10 at the adjourned meeting.

In order that the Company may determine the stockholders entitled to consent to corporate action in writing without a meeting, the Board may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board, and which date shall not be more than 10 days after the date upon which the resolution fixing the record date is adopted by the Board. If no record date has been fixed by the Board, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting, when no prior action by the Board is required by law, shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the Company in accordance with applicable law. If no record date has been fixed by the Board and prior action by the Board is required by law, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting shall be at the close of business on the day on which the Board adopts the resolution taking such prior action.

In order that the Company may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than 60 days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board adopts the resolution relating thereto.

1.11 ***Proxies***. Each stockholder entitled to vote at a meeting of stockholders or to express consent or dissent to corporate action in writing without a meeting may authorize another person or persons to act for such stockholder by proxy authorized by an instrument in writing or by a transmission permitted by law filed in accordance with the procedure established for the meeting, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212 of the DGCL.

1.12 ***List of Stockholders Entitled to Vote***. The officer who has charge of the stock ledger of the Company shall prepare and make, at least ten days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting; *provided*, *however*, if the record date for determining the stockholders entitled to vote is less than 10 days before the meeting date, the list shall reflect the stockholders entitled to vote as of the tenth day before the meeting date, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. The Company shall not be required to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder for any purpose germane to the meeting for a period of at least ten days prior to the meeting: (i) on a reasonably accessible electronic network, *provided* that the information required to gain access to such list is provided with the notice of the meeting, or (ii) during ordinary business hours, at the Company's principal place of business, In the event that the Company determines to make the list available on an electronic network, the Company may take reasonable steps to ensure that such information is available only to stockholders of the Company. If the meeting is to be held at a place, then a list of stockholders entitled to vote at the meeting shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be examined by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then such list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting.

ARTICLE II — DIRECTORS

2.1 ***Powers***. The business and affairs of the Company shall be managed by or under the direction of the Board, except as may be otherwise provided in the DGCL or the certificate of incorporation.

2.2 ***Number of Directors***. The Board shall consist of one or more members, each of whom shall be a natural person. Unless the certificate of incorporation fixes the number of directors, the number of directors shall be determined from time to time by resolution of the Board. No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires.

2.3 ***Election, Qualification and Term of Office of Directors***. Except as provided in **section 2.4** of these bylaws, and subject to **sections 1.2** and **1.9** of these bylaws, directors shall be elected at each annual meeting of stockholders. Directors need not be stockholders unless so required by the certificate of incorporation or these bylaws. The certificate of incorporation or these bylaws may prescribe other qualifications for directors. Each director shall hold office until such director's successor is elected and qualified or until such director's earlier death, resignation or removal.

2.4 ***Resignation and Vacancies***. Any director may resign at any time upon notice given in writing or by electronic transmission to the Company. A resignation is effective when the resignation is delivered unless the resignation specifies a later effective date or an effective date determined upon the happening of an event or events. A resignation which is conditioned upon the director failing to receive a specified vote for reelection as a director may provide that it is irrevocable. Unless otherwise provided in the certificate of incorporation or these bylaws, when one or more directors resign from the Board, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective.

Unless otherwise provided in the certificate of incorporation or these bylaws:

(i) Vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director.

(ii) Whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the certificate of incorporation, vacancies and newly created directorships of such class or classes or series may be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected.

If at any time, by reason of death or resignation or other cause, the Company should have no directors in office, then any officer or any stockholder or an executor, administrator, trustee or guardian of a stockholder, or other fiduciary entrusted with like responsibility for the person or estate of a stockholder, may call a special meeting of stockholders in accordance with the provisions of the certificate of incorporation or these bylaws, or may apply to the Court of Chancery for a decree summarily ordering an election as provided in Section 211 of the DGCL.

If, at the time of filling any vacancy or any newly created directorship, the directors then in office constitute less than a majority of the whole Board (as constituted immediately prior to any such increase), the Court of Chancery may, upon application of any stockholder or stockholders holding at least 10% of the voting stock at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office as aforesaid, which election shall be governed by the provisions of Section 211 of the DGCL as far as applicable.

A director elected to fill a vacancy shall be elected for the unexpired term of his or her predecessor in office and until such director's successor is elected and qualified, or until such director's earlier death, resignation or removal.

2.5 ***Place of Meetings; Meetings by Telephone***. The Board may hold meetings, both regular and special, either within or outside the State of Delaware.

Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the Board, or any committee designated by the Board, may participate in a meeting of the Board, or any committee, by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

2.6 ***Conduct of Business***. Meetings of the Board shall be presided over by the Chairperson of the Board, if any, or in his or her absence by the Vice Chairperson of the Board, if any, or in the absence of the foregoing persons by a chairperson designated by the Board, or in the absence of such designation by a chairperson chosen at the meeting. The Secretary shall act as secretary of the meeting, but in his or her absence the chairperson of the meeting may appoint any person to act as secretary of the meeting.

2.7 ***Regular Meetings***. Regular meetings of the Board may be held without notice at such time and at such place as shall from time to time be determined by the Board.

2.8 ***Special Meetings; Notice***. Special meetings of the Board for any purpose or purposes may be called at any time by the Chairperson of the Board, the Chief Executive Officer, the President, the Secretary or any two directors.

Notice of the time and place of special meetings shall be:

(i) delivered personally by hand, by courier or by telephone;

(ii) sent by United States first-class mail, postage prepaid;

(iii) sent by facsimile;

(iv) sent by electronic mail; or

(v) otherwise given by electronic transmission (as defined in **section 7.2**),

directed to each director at that director's address, telephone number, facsimile number, electronic mail address or other contact for notice by electronic transmission, as the case may be, as shown on the Company's records.

If the notice is (i) delivered personally by hand, by courier or by telephone, (ii) sent by facsimile, (iii) sent by electronic mail or (iv) otherwise given by electronic transmission, it shall be delivered, sent or otherwise directed to each director, as applicable, at least 24 hours before the time of the holding of the meeting. If the notice is sent by United States mail, it shall be deposited in the United States mail at least four days before the time of the holding of the meeting. Any oral notice may be communicated to the director. The notice need not specify the place of the meeting (if the meeting is to be held at the Company's principal executive office) nor the purpose of the meeting.

2.9 ***Quorum; Voting***. At all meetings of the Board, a majority of the total authorized number of directors shall constitute a quorum for the transaction of business. If a quorum is not present at any meeting of the Board, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present. A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for that meeting.

The vote of a majority of the directors present at any meeting at which a quorum is present shall be the act of the Board, except as may be otherwise specifically provided by statute, the certificate of incorporation or these bylaws.

If the certificate of incorporation provides that one or more directors shall have more or less than one vote per director on any matter, every reference in these bylaws to a majority or other proportion of the directors shall refer to a majority or other proportion of the votes of the directors.

2.10 ***Board Action by Written Consent Without a Meeting***. Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the Board, or of any committee thereof, may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form. Any person (whether or not then a director) may provide, whether through instruction to an agent or otherwise, that a consent to action will be effective at a future time (including a time determined upon the happening of an event), no later than 60 days after such instruction is given or such provision is made and such consent shall be deemed to have been given for purposes of this **section 2.10** at such effective time so long as such person is then a director and did not revoke the consent prior to such time. Any such consent shall be revocable prior to its becoming effective.

2.11 ***Fees and Compensation of Directors***. Unless otherwise restricted by the certificate of incorporation or these bylaws, the Board shall have the authority to fix the compensation of directors.

2.12 ***Removal of Directors***. Unless otherwise restricted by statute, the certificate of incorporation or these bylaws, any director or the entire Board may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors.

No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of such director's term of office.

ARTICLE III — COMMITTEES

3.1 ***Committees of Directors***. The Board may designate one or more committees, each committee to consist of one or more of the directors of the Company. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board or in these bylaws, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Company, and may authorize the seal of the Company to be affixed to all papers that may require it; but no such committee shall have the power or authority to (i) approve or adopt, or recommend to the stockholders, any action or matter (other than the election or removal of directors) expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopt, amend or repeal any bylaw of the Company,

3.2 ***Committee Minutes***. Each committee shall keep regular minutes of its meetings and report the same to the Board when required.

3.3 ***Meetings and Actions of Committees***. Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of:

(i) **section 2.5** (Place of Meetings; Meetings by Telephone);

(ii) **section 2.7** (Regular Meetings);

(iii) **section 2.8** (Special Meetings; Notice);

(iv) **section 2.9** (Quorum; Voting);

(v) **section 2.10** (Board Action by Written Consent Without a Meeting); and

(vi) **section 7.5** (Waiver of Notice)

with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the Board and its members. *However*:

(i) the time of regular meetings of committees may be determined either by resolution of the Board or by resolution of the committee;

(ii) special meetings of committees may also be called by resolution of the Board; and

(iii) notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The Board may adopt rules for the government of any committee not inconsistent with the provisions of these bylaws.

Any provision in the certificate of incorporation providing that one or more directors shall have more or less than one vote per director on any matter shall apply to voting in any committee or subcommittee, unless otherwise provided in the certificate of incorporation or these bylaws.

3.4 ***Subcommittees***. Unless otherwise provided in the certificate of incorporation, these bylaws or the resolutions of the Board designating the committee, a committee may create one or more subcommittees, each subcommittee to consist of one or more members of the committee, and delegate to a subcommittee any or all of the powers and authority of the committee.

ARTICLE IV — OFFICERS

4.1 ***Officers***. The officers of the Company shall be a President and a Secretary. The Company may also have, at the discretion of the Board, a Chairperson of the Board, a Vice Chairperson of the Board, a Chief Executive Officer, one or more Vice Presidents, a Chief Financial Officer, a Treasurer, one or more Assistant Treasurers, one or more Assistant Secretaries, and any such other officers as may be appointed in accordance with the provisions of these bylaws. Any number of offices may be held by the same person.

4.2 ***Appointment of Officers***. The Board shall appoint the officers of the Company, except such officers as may be appointed in accordance with the provisions of **section 4.3** of these bylaws.

4.3 ***Subordinate Officers***. The Board may appoint, or empower the Chief Executive Officer or, in the absence of a Chief Executive Officer, the President, to appoint, such other officers and agents as the business of the Company may require. Each of such officers and agents shall hold office for such period, have such authority, and perform such duties as are provided in these bylaws or as the Board may from time to time determine.

4.4 ***Removal and Resignation of Officers***. Any officer may be removed, either with or without cause, by an affirmative vote of the majority of the Board at any regular or special meeting of the Board or, except in the case of an officer chosen by the Board, by any officer upon whom such power of removal may be conferred by the Board.

Any officer may resign at any time by giving written notice to the Company. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice. Unless otherwise specified in the notice of resignation, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the Company under any contract to which the officer is a party.

4.5 ***Vacancies in Offices***. Any vacancy occurring in any office of the Company shall be filled by the Board or as provided in section 4.3.

4.6 ***Representation of Shares of Other Corporations***. Unless otherwise directed by the Board, the President or any other person authorized by the Board or the President is authorized to vote, represent and exercise on behalf of the Company all rights incident to any and all shares of any other corporation or corporations standing in the name of the Company. The authority granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

4.7 ***Authority and Duties of Officers***. Except as otherwise provided in these bylaws, the officers of the Company shall have such powers and duties in the management of the Company as may be designated from time to time by the Board and, to the extent not so provided, as generally pertain to their respective offices, subject to the control of the Board.

ARTICLE V — INDEMNIFICATION

5.1 ***Indemnification of Directors and Officers in Third Party Proceedings***. Subject to the other provisions of this **Article V**, the Company shall indemnify, to the fullest extent permitted by the DGCL, as now or hereinafter in effect, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (a "**Proceeding**") (other than an action by or in the right of the Company) by reason of the fact that such person is or was a director or officer of the Company, or is or was a director or officer of the Company serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such Proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful. The termination of any Proceeding by judgment, order, settlement, conviction, or upon a plea of *nolo contendere* or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which such person reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had reasonable cause to believe that such person's conduct was unlawful.

5.2 ***Indemnification of Directors and Officers in Actions by or in the Right of the Company***. Subject to the other provisions of this **Article V**, the Company shall indemnify, to the fullest extent permitted by the DGCL, as now or hereinafter in effect, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Company to procure a judgment in its favor by reason of the fact that such person is or was a director or officer of the Company, or is or was a director or officer of the Company serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Company; except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Company unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

5.3 ***Successful Defense***. To the extent that a present or former director or officer of the Company has been successful on the merits or otherwise in defense of any action, suit or proceeding described in **section 5.1** or **section 5.2**, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith.

5.4 ***Indemnification of Others***. Subject to the other provisions of this **Article V**, the Company shall have power to indemnify its employees and agents to the extent not prohibited by the DGCL or other applicable law. The Board shall have the power to delegate to such person or persons the determination of whether employees or agents shall be indemnified.

5.5 ***Advanced Payment of Expenses***. Expenses (including attorneys' fees) actually and reasonably incurred by an officer or director of the Company in defending any Proceeding shall be paid by the Company in advance of the final disposition of such Proceeding upon receipt of a written request therefor (together with documentation reasonably evidencing such expenses) and an undertaking by or on behalf of the person to repay such amounts if it shall ultimately be determined that the person is not entitled to be indemnified under this **Article V** or the DGCL. Such expenses (including attorneys' fees) actually and reasonably incurred by former directors and officers or other employees and agents of the Company or by persons serving at the request of the Company as directors, officers, employees or agents of another corporation, partnership, joint venture, trust or other enterprise may be so paid upon such terms and conditions, if any, as the Company deems appropriate. The right to advancement of expenses shall not apply to any Proceeding for which indemnity is excluded pursuant to these bylaws, but shall apply to any Proceeding referenced in **section 5.6(ii)** or **5.6(iii)** prior to a determination that the person is not entitled to be indemnified by the Company.

Notwithstanding the foregoing, unless otherwise determined pursuant to **section 5.8**, no advance shall be made by the Company to an officer of the Company (except by reason of the fact that such, officer is or was a director of the Company, in which event this paragraph shall not apply) in any Proceeding if a determination is reasonably and promptly made (i) by a majority vote of the directors who are not parties to such Proceeding, even though less than a quorum, or (ii) by a committee of such directors designated by majority vote of such directors, even though less than a quorum, or (iii) if there are no such directors, or if such directors so direct, by independent legal counsel in a written opinion, that facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the Company.

5.6 ***Limitation on Indemnification***. Subject to the requirements in **section 5.3** and the DGCL, the Company shall not be obligated to indemnify any person pursuant to this **Article V** in connection with any Proceeding (or any part of any Proceeding):

(i) for which payment has actually been made to or on behalf of such person under any statute, insurance policy, indemnity provision, vote or otherwise, except with respect to any excess beyond the amount paid;

(ii) for an accounting or disgorgement of profits pursuant to Section l6(b) of the Securities Exchange Act of 1934, as amended, or similar provisions of federal, state or local statutory law or common law, if such person is held liable therefor (including pursuant to any settlement arrangements);

(iii) for any reimbursement of the Company by such person of any bonus or other incentive-based or equity-based compensation or of any profits realized by such person from the sale of securities of the Company, as required in each case under the Securities Exchange Act of 1934, as amended (including any such reimbursements that arise from an accounting restatement of the Company pursuant to Section 304 of the Sarbanes-Oxley Act of 2002 (the "**Sarbanes-Oxley Act**"), or the payment to the Company of profits arising from the purchase and sale by such person of securities in violation of Section 306 of the Sarbanes-Oxley Act), if such person is held liable therefor (including pursuant to any settlement arrangements);

(iv) initiated by such person, including any Proceeding (or any part of any Proceeding) initiated by such person against the Company or its directors, officers, employees, agents or other indemnitees, unless (a) the Board authorized the Proceeding (or the relevant part of the Proceeding) prior to its initiation, (b) the Company provides the indemnification, in its sole discretion, pursuant to the powers vested in the Company under applicable law, (c) otherwise required to be made under **section 5.7** or (d) otherwise required by applicable law; or

(v) if prohibited by applicable law.

5.7 ***Determination; Claim***. If a claim for indemnification or advancement of expenses under this **Article V** is not paid by the Company or on its behalf within 90 days after receipt by the Company of a written request therefor, the claimant shall be entitled to an adjudication by a court of competent jurisdiction of his or her entitlement to such indemnification or advancement of expenses. To the extent not prohibited by law, the Company shall indemnify such person against all expenses actually and reasonably incurred by such person in connection with any action for indemnification or advancement of expenses from the Company under this **Article V**, to the extent such person is successful in such action, and, if requested by such person, shall advance such expenses to such person, subject to the provisions of **section 5.5**. In any such suit, the Company shall, to the fullest extent not prohibited by law, have the burden of proving that the claimant is not entitled to the requested indemnification or advancement of expenses.

5.8 ***Non-Exclusivity of Rights***. The indemnification and advancement of expenses provided by, or granted pursuant to, this **Article V** shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under the certificate of incorporation or any statute, bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office. The Company is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advancement of expenses, to the fullest extent not prohibited by the DGCL or other applicable law.

5.9 ***Insurance***. The Company may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Company, or is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the Company would have the power to indemnify such person against such liability under the provisions of the DGCL.

5.10 ***Survival***. The rights to indemnification and advancement of expenses conferred by this **Article V** shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

5.11 ***Effect of Repeal or Modification***. A right to indemnification or to advancement of expenses arising under a provision of the certificate of incorporation or a bylaw shall not be eliminated or impaired by an amendment to the certificate of incorporation or these bylaws after the occurrence of the act or omission that is the subject of the civil, criminal, administrative or investigative action, suit or proceeding for which indemnification or advancement of expenses is sought, unless the provision in effect at the time of such act or omission explicitly authorizes such elimination or impairment after such action or omission has occurred.

5.12 ***Certain Definitions***. For purposes of this **Article V**, references to the "**Company**" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this **Article V** with respect to the resulting or surviving corporation as such person would have with respect to such constituent corporation if its separate existence had continued. For purposes of this **Article V**, references to "**other enterprises**" shall include employee benefit plans; references to "**fines**" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "**serving at the request of the Company**" shall include any service as a director, officer, employee or agent of the Company which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "**not opposed to the best interests of the Company**" as referred to in this **Article V.**

ARTICLE VI — STOCK

6.1 ***Stock Certificates; Partly Paid Shares***. The shares of the Company shall be represented by certificates, *provided* that the Board may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Company. Every holder of stock represented by certificates shall be entitled to have a certificate signed by, or in the name of the Company by the Chairperson of the Board or Vice-Chairperson of the Board, or the President or a Vice-President, and by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary of the Company representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Company with the same effect as if such person were such officer, transfer agent or registrar at the date of issue. The Company shall not have power to issue a certificate in bearer form.

The Company may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, or upon the books and records of the Company in the case of uncertificated partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the Company shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

6.2 ***Special Designation on Certificates***. If the Company is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the Company shall issue to represent such class or series of stock; *provided* that, except as otherwise provided in Section 202 of the DGCL, in lieu of the foregoing requirements there may be set forth on the face or back of the certificate that the Company shall issue to represent such class or series of stock, a statement that the Company will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights. Within a reasonable time after the issuance or transfer of uncertificated stock, the Company shall send to the registered owner thereof a written notice containing the information required to be set forth or stated on certificates pursuant to this section 6.2 or Sections 156, 202(a) or 218(a) of the DGCL or with respect to this section 6.2 a statement that the Company will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights. Except as otherwise expressly provided by law, the rights and obligations of the holders of uncertificated stock and the rights and obligations of the holders of certificates representing stock of the same class and series shall be identical.

6.3 ***Lost Certificates***. Except as provided in this **section 6.3**, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the Company and cancelled at the same time. The Company may issue a new certificate of stock or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the Company may require the owner of the lost, stolen or destroyed certificate, or such owner's legal representative, to give the Company a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

6.4 ***Dividends***. The Board, subject to any restrictions contained in the certificate of incorporation or applicable law, may declare and pay dividends upon the shares of the Company's capital stock. Dividends may be paid in cash, in property, or in shares of the Company's capital stock, subject to the provisions of the certificate of incorporation.

The Board may set apart out of any of the funds of the Company available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve.

6.5 ***Stock Transfer Agreements***. The Company shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the Company to restrict the transfer of shares of stock of the Company of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

6.6 ***Registered Stockholders***. The Company:

(i) shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner;

(ii) shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares; and

(iii) shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

6.7 ***Transfers***. Transfers of record of shares of stock of the Company shall be made only upon its books by the holders thereof, in person or by an attorney duly authorized, and, if such stock is certificated, upon the surrender of a certificate or certificates for a like number of shares, properly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer.

ARTICLE VII — MANNER OF GIVING NOTICE AND WAIVER

7.1 ***Notice of Stockholder Meetings***. Notice of any meeting of stockholders, if mailed, is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the Company's records. An affidavit of the Secretary or an Assistant Secretary of the Company or of the transfer agent or other agent of the Company that the notice has been given shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

7.2 ***Notice by Electronic Transmission***. Without limiting the manner by which notice otherwise may be given effectively to stockholders pursuant to the DGCL, the certificate of incorporation or these bylaws, any notice to stockholders given by the Company under any provision of the DGCL, the certificate of incorporation or these bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder to whom the notice is given. Any such consent shall be revocable by the stockholder by written notice to the Company. Any such consent shall be deemed revoked if:

(i) the Company is unable to deliver by electronic transmission two consecutive notices given by the Company in accordance with such consent; and

(ii) such inability becomes known to the Secretary or an Assistant Secretary of the Company or to the transfer agent, or other person responsible for the giving of notice.

However, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

Any notice given pursuant to the preceding paragraph shall be deemed given:

(i) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice;

(ii) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice;

(iii) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of (A) such posting and (B) the giving of such separate notice; and

(iv) if by any other form of electronic transmission, when directed to the stockholder.

An affidavit of the Secretary or an Assistant Secretary or of the transfer agent or other agent of the Company that the notice has been given by a form of electronic transmission shall, in the absence of fraud, be *prima facie* evidence of the facts stated therein.

An "**electronic transmission**" means any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved, and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process.

Notice by a form of electronic transmission shall not apply to Sections 164, 296, 311, 312 or 324 of the DGCL.

7.3 ***Notice to Stockholders Sharing an Address***. Except as otherwise prohibited under the DGCL, without limiting the manner by which notice otherwise may be given effectively to stockholders, any notice to stockholders given by the Company under the provisions of the DGCL, the certificate of incorporation or these bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Any such consent shall be revocable by the stockholder by written notice to the Company. Any stockholder who fails to object in writing to the Company, within 60 days of having been given written notice by the Company of its intention to send the single notice, shall be deemed to have consented to receiving such single written notice.

7.4 ***Notice to Person with Whom Communication is Unlawful***. Whenever notice is required to be given, under the DGCL, the certificate of incorporation or these bylaws, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the Company is such as to require the filing of a certificate under the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

7.5 ***Waiver of Notice***. Whenever notice is required to be given under any provision of the DGCL, the certificate of incorporation or these bylaws, a written waiver, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time of the event for which notice is to be given, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the certificate of incorporation or these bylaws.

ARTICLE VIII — GENERAL MATTERS

8.1 ***Fiscal Year***. The fiscal year of the Company shall be fixed by resolution of the Board and may be changed by the Board.

8.2 ***Seal***. The Company may adopt a corporate seal, which shall be in such form as may be approved from time to time by the Board. The Company may use the corporate seal by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

8.3 ***Annual Report***. The Company shall cause an annual report to be sent to the stockholders of the Company to the extent required by applicable law. If and so long as there are fewer than 100 holders of record of the Company's shares, the requirement of sending an annual report to the stockholders of the Company is expressly waived (to the extent permitted under applicable law).

8.4 ***Construction; Definitions***. Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the DGCL shall govern the construction of these bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term "person" includes both a corporation and a natural person.

ARTICLE IX — AMENDMENTS

These bylaws may be adopted, amended or repealed by the stockholders entitled to vote. However, the Company may, in its certificate of incorporation, confer the power to adopt, amend or repeal bylaws upon the directors. The fact that such power has been so conferred upon the directors shall not divest the stockholders of the power, nor limit their power to adopt, amend or repeal bylaws.

A bylaw amendment adopted by stockholders which specifies the votes that shall be necessary for the election of directors shall not be further amended or repealed by the Board.

CERTIFICATE OF ADOPTION OF BYLAWS
OF
AKOYA BIOSCIENCES, INC.

The undersigned certifies that he is the duly elected, qualified and acting Secretary of Akoya Biosciences, Inc., a Delaware corporation (the "***Company***"), and that the foregoing bylaws, comprising eighteen (18) pages, were adopted as the bylaws of the Company on November 16, 2015 by the sole incorporator of the Company.

The undersigned has executed this certificate as of November 16, 2015.

/s/ Rob Hart
Rob Hart, Secretary

Exhibit 3.3

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
AKOYA BIOSCIENCES, INC.
a Delaware corporation

(**Pursuant to Sections 242 and 245 of the**
General Corporation Law of the State of Delaware)

Akoya BioSciences, Inc., (the "***Corporation***") a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "***DGCL***"),

DOES HEREBY CERTIFY:

1. That the name of this Corporation is Akoya BioSciences, Inc., which was originally incorporated pursuant to the DGCL on November 13, 2015 under the name Akoya BioSciences, Inc.

2. The Amended and Restated Certificate of Incorporation of this Corporation attached hereto as Exhibit A, which is incorporated herein by this reference, and which restates, integrates and further amends the provisions of the Certificate of Incorporation of this Corporation, as previously amended and restated, has been duly adopted by this Corporation's Board of Directors and by the stockholders in accordance with Sections 242 and 245 of the DGCL, with the approval of this Corporation's stockholders having been given by written consent without a meeting in accordance with Section 228 of the DGCL.

IN WITNESS WHEREOF, this Corporation has caused this Amended and Restated Certificate of Incorporation to be signed by its duly authorized officer and the foregoing facts stated herein are true and correct.

[*Remainder of page intentionally left blank*]

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been executed by a duly authorized officer of this Corporation on this ___ day of _____, 2021.

By: _____
Name: Brian McKelligon
Title: Chief Executive Officer

[Signature Page to Amended and Restated Certificate of Incorporation]

EXHIBIT A

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
AKOYA BIOSCIENCES, INC.
a Delaware corporation

ARTICLE I

The name of the corporation is Akoya BioSciences, Inc. (hereinafter referred to as the "***Corporation***").

ARTICLE II

The address of the Corporation's registered office in the State of Delaware is 850 New Burton Road, Suite 201, Dover, Delaware 19904, County of Kent. The name of the Corporation's registered agent at such address is Cogency Global Inc.

ARTICLE III

The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware (the "***DGCL***") and to possess and employ all powers and privileges now or hereafter granted or available under the laws of the State of Delaware to such corporations.

ARTICLE IV

A. The total number of shares of capital stock of all classes that the Corporation shall have authority to issue is 510,000,000 shares, consisting of: 500,000,000 shares of common stock, $0.00001 par value per share ("***Common Stock***") and 10,000,000 shares of preferred stock, par value $0.00001 per share ("***Preferred Stock***").

B. Except as otherwise restricted by this Amended and Restated Certificate of Incorporation (this "***Certificate***"), the Corporation is authorized to issue, from time to time, all or any portion of the capital stock of the Corporation which may have been authorized but not issued, to such person or persons and for such lawful consideration as it may deem appropriate, and generally in its absolute discretion to determine the terms and manner of any disposition of such authorized but unissued capital stock. Any and all such shares issued for which the full consideration has been paid or delivered shall be deemed fully paid shares of capital stock, and the holder of such shares shall not be liable for any further call or assessment or any other payment thereon.

C. The designations and the powers, preferences and rights and qualifications, limitations or restrictions of the shares of each class of stock are as follows:

1. Common Stock

(a) General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to the rights of the holders of any series of Preferred Stock then outstanding.

(b) Voting. Except as otherwise provided herein, the holders of the Common Stock are entitled to one (1) vote for each share of Common Stock held at all meetings of stockholders; provided, however, that, except as otherwise required by law, holders of Common Stock, as such, shall not be entitled to vote on any amendment to this Certificate that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to this Certificate or pursuant to the DGCL. There shall be no cumulative voting. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by (in addition to any vote of the holders of one or more series of Preferred Stock that may be required, if any Preferred Stock is then outstanding) the affirmative vote of the holders of shares of capital stock of the Corporation representing a majority of all outstanding shares of capital stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the DGCL.

2. Preferred Stock. The shares of Preferred Stock shall initially be undesignated and may be issued from time to time in one or more additional series by the Board of Directors. The Board of Directors is hereby authorized, subject to any limitations prescribed by law, to determine or alter the rights, preferences, privileges and restrictions granted to or imposed upon a wholly-unissued series of Preferred Stock, and the number of shares constituting any such series and the designation thereof, or any of them; and to increase or decrease the number of shares constituting any such series and the designation thereof, or any of them; and to increase or decrease the number of shares of any series subsequent to the issue of shares of that series, but, in respect of decreases, not below the number of shares of such series then outstanding. In case the number of shares of any series should be so decreased, the shares constituting such decrease shall resume the status which they had prior to the adoption of the resolutions originally fixing the number of shares of such series. The number of authorized shares of Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the outstanding shares of Common Stock without a vote of the holders of the Preferred Stock, or of any series thereof, unless a vote of any such holders is required pursuant to the certificate or certificates establishing any series of Preferred Stock.

ARTICLE V

The Corporation is to have perpetual existence.

ARTICLE VI

The following provisions are inserted for the management of the business and the conduct of the affairs of the Corporation, and for further definition, limitation and regulation of the powers of the Corporation and of its directors and stockholders:

A. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors. In addition to the powers and authority expressly conferred upon them by law or by this Certificate or the bylaws of the Corporation, as the same may be amended from time to time (the "***Bylaws***"), the directors are hereby empowered to exercise all such powers and do all such acts and things as may be exercised or done by the Corporation.

B. The directors of the Corporation need not be elected by written ballot unless the Bylaws so provide.

C. Subject to the rights of the holders of any series of Preferred Stock, any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of stockholders of the Corporation and may not be effected by any consent in writing by such stockholders.

D. Subject to the rights of the holders of any series of Preferred Stock then outstanding, special meetings of stockholders of the Corporation may be called only by the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board for adoption), the Chairperson of the Board or the Chief Executive Officer.

E. The number of directors shall be fixed from time to time exclusively by the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board of Directors for adoption). Beginning immediately following the consummation of the Corporation's initial public offering of its Common Stock pursuant to an effective registration statement under the Securities Act of 1933, as amended, (the "***Initial Public Offering***"), the directors shall, by resolution of the Board of Directors, be divided into three classes, hereby designated Class I, Class II and Class III. The term of office of the initial Class I directors shall expire at the first annual meeting of stockholders of the Corporation following the Initial Public Offering, the term of office of the initial Class II directors shall expire at the second annual meeting of stockholders of the Corporation following the Initial Public Offering, and the term of office of the initial Class III directors shall expire at the third annual meeting of stockholders of the Corporation following the Initial Public Offering. At each annual meeting of stockholders of the Corporation following the Initial Public Offering, directors elected to replace those of a Class whose terms expire at such annual meeting shall be elected for a term expiring at the third succeeding annual meeting of stockholders of the Corporation after such election. All directors shall hold office until the expiration of the term for which elected, and until their respective successors have been duly elected and qualified, except in the case of the death, resignation, or removal of any director. Nothing in this Certificate shall preclude a director from serving consecutive terms.

F. Subject to the rights of the holders of any series of Preferred Stock then outstanding, (i) newly created directorships resulting from any increase in the authorized number of directors and (ii) any vacancies in the Board of Directors resulting from death, resignation, disqualification, removal from office, or other cause may be filled only by the Board of Directors (and not by stockholders), provided that a quorum is then in office and present, or by a majority of the directors then in office, if less than a quorum is then in office, or by the sole remaining director. A director elected to fill a vacancy shall be elected for the unexpired term of such director's predecessor in office and until such director's successor is duly elected and qualified, or until such director's earlier death, resignation, or removal. After the Initial Public Offering, a director chosen to fill a position resulting from an increase in the number of directors shall hold office until the next election of the class for which such director shall have been chosen, and until such director's successor is duly elected and qualified, or until such director's earlier death, resignation, or removal. No decrease in the authorized number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

G. Subject to the rights of the holders of any series of Preferred Stock then outstanding, and notwithstanding any other provision of this Certificate, directors may be removed from office only for cause and only by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class. Vacancies in the Board of Directors resulting from such removal shall be filled as set forth above under Article VI, Part F.

H. Subject to the rights of holders of any series of Preferred Stock, advance notice of stockholder nominations for election of directors and of business to be brought by stockholders before any meeting of stockholders of the Corporation shall be given in the manner provided by the Bylaws of the Corporation.

ARTICLE VII

No director shall be personally liable to the Corporation or its stockholders for monetary damages for breach of such director's fiduciary duty as a director of the Corporation, except for liability (i) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (ii) for any acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL or (iv) for any transaction from which the director derived an improper personal benefit. If the DGCL hereafter is amended to authorize further elimination or limitation of the liability of directors, then the liability of a director of the Corporation, in addition to the limitation on personal liability provided herein, shall be limited to the fullest extent permitted by the amended DGCL. Any repeal or modification of this paragraph by the stockholders of the Corporation shall be prospective only and shall not adversely affect any limitation on the personal liability of a director of the Corporation existing at the time of such repeal or modification.

The Corporation shall indemnify any director or officer to the fullest extent permitted by Delaware law.

ARTICLE VIII

All of the powers of the Corporation, insofar as the same may be lawfully vested by this Certificate in the Board of Directors, are hereby conferred upon the Board of Directors.

ARTICLE IX

The Board of Directors is expressly empowered to adopt, amend or repeal the Bylaws. Any adoption, amendment or repeal of the Bylaws by the Board of Directors shall require the approval of a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any resolution providing for adoption, amendment or repeal is presented to the Board of Directors). The stockholders shall also have power to adopt, amend or repeal the Bylaws. Subject to the rights of the holders of any series of Preferred Stock then outstanding, any adoption, amendment or repeal of Bylaws by the stockholders shall require, in addition to any vote of the holders of any class or series of stock of the Corporation required by law or by this Certificate, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class.

ARTICLE X

The Corporation reserves the right to amend or repeal any provision contained in this Certificate in the manner prescribed by the laws of the State of Delaware and all rights conferred upon stockholders are granted subject to this reservation; provided, that, notwithstanding any other provision of this Certificate or any provision of law which might otherwise permit a lesser vote or no vote, but subject to the rights of the holders of any series of Preferred Stock then outstanding and in addition to any vote of the holders of any class or series of the stock of this Corporation required by law or by this Certificate, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to amend or repeal, or adopt any provision of this Certificate inconsistent with, Article VI, Article VII, Article VIII, this Article X or Article XII.

ARTICLE XI

If any provision of this Certificate becomes or is declared on any ground by a court of competent jurisdiction to be illegal, unenforceable or void, portions of such provision, or such provision in its entirety, to the extent necessary, shall be severed from this Certificate, and the court will replace such illegal, void or unenforceable provision of this Certificate with a valid and enforceable provision that most accurately reflects the Corporation's intent, in order to achieve, to the maximum extent possible, the same economic, business and other purposes of the illegal, void or unenforceable provision. The balance of this Certificate shall be enforceable in accordance with its terms.

ARTICLE XII

Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (a) any derivative action or proceeding brought on behalf of the Corporation, (b) any action asserting a claim of breach of a fiduciary duty owed by any director, officer, employee, agent or stockholder of the Corporation to the Corporation or the Corporation's stockholders, (c) any action asserting a claim arising pursuant to any provision of the DGCL, this Certificate or the Bylaws or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware or (d) any action asserting a claim governed by the internal affairs doctrine, in each such case subject to such Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein. In addition, unless the Corporation consents in writing to the selection of an alternative forum, the U.S. federal district courts shall, to the fullest extent permitted by law, be the sole and exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act of 1933, as amended. Notwithstanding anything herein to the contrary, this Article XII shall not apply to suits brought to enforce a duty or liability created by the Securities Exchange Act of 1934, as amended (the "***Exchange Act***"), or the rules and regulations under the Exchange Act, or any other claim for which the U.S. federal courts have exclusive jurisdiction. To the fullest extent permitted by applicable law, any person or entity purchasing or otherwise acquiring or holding any interest in shares of capital stock of the Corporation shall be deemed to have notice of and consented to the provisions of this Article XII.

* * *

Exhibit 3.4

AMENDED AND RESTATED BYLAWS

OF

AKOYA BIOSCIENCES, INC.

Effective as of _____

ARTICLE I
CORPORATE OFFICES

1.1 Registered Office. The address of the registered office of Akoya BioSciences, Inc. (the "***Corporation***") in the State of Delaware, and the name of its registered agent at such address, shall be as set forth in the Corporation's certificate of incorporation, as the same may be amended and/or restated from time to time (the "***Certificate of Incorporation***")

1.2 Other Offices. The Corporation may have an office or offices other than its registered office at such place or places, either within or outside the State of Delaware, as the Board of Directors of the Corporation (the "***Board***") may from time to time determine or the business of the Corporation may require.

ARTICLE II
STOCKHOLDERS

2.1 Place of Meetings. All meetings of stockholders shall be held at such place (if any) within or without the State of Delaware as may be determined from time to time by the Board or, if not determined by the Board, by the Chairperson of the Board, the President or the Chief Executive Officer; provided that the Board may, in its sole discretion, determine that any meeting of stockholders shall not be held at any place but shall be held solely by means of remote communication in accordance with Section 2.13.

2.2 Annual Meeting. The annual meeting of stockholders for the election of directors and for the transaction of such other business as may properly be brought before the meeting shall be held on a date to be fixed by the Board at a time to be fixed by the Board and stated in the notice of the meeting.

2.3 Special Meetings. Subject to the Certificate of Incorporation, the rights of the holders of any series of preferred stock then outstanding and to the requirements of applicable law, special meetings of the stockholders of the Corporation may be called only by the Board acting pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board for adoption), the Chairperson of the Board, or the Chief Executive Officer and may not be called by any other person or persons. Any business transacted at any special meeting of stockholders shall be limited to matters relating to the purpose or purposes stated in the notice of the meeting.

2.4 Notice of Meetings.

(a) Written notice of each meeting of stockholders, whether annual or special, shall be given not less than 10 nor more than 60 days before the date on which the meeting is to be held, to each stockholder entitled to vote at such meeting as of the record date fixed by the Board for determining the stockholders entitled to notice of the meeting, except as otherwise provided herein or required by the General Corporation Law of the State of Delaware (the "***DGCL***") or the Certificate of Incorporation. The notice of any meeting shall state the place, if any, date and hour of the meeting, and the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting. The notice of a special meeting shall state, in addition, the purpose or purposes for which the meeting is called.

(b) Notice to stockholders shall be delivered in writing or in any other manner permitted by the DGCL. If mailed, such notice shall be delivered by postage prepaid envelope directed to each stockholder at such stockholder's address as it appears in the records of the Corporation and shall be deemed given when deposited in the United States mail. Without limiting the manner by which notices of meetings otherwise may be given effectively to stockholders, any such notice may be given by electronic transmission in the manner provided in Section 232 of the DGCL. An affidavit of the secretary or an assistant secretary or of the transfer agent or other agent of the Corporation that the notice has been given by personal delivery, by mail, or by a form of electronic transmission shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

(c) Notice of any meeting of stockholders need not be given to any stockholder if waived by such stockholder either in a writing signed by such stockholder or by electronic transmission, whether such waiver is given before or after such meeting is held. If such a waiver is given by electronic transmission, the electronic transmission must either set forth or be submitted with information from which it can be determined that the electronic transmission was authorized by the stockholder.

2.5 Voting List. The officer who has charge of the stock ledger of the Corporation shall prepare, at least 10 days before each meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting; the list shall reflect the stockholders entitled to vote as of the tenth day before the meeting date, arranged in alphabetical order for each class of stock and showing the mailing address of each stockholder and the number of shares registered in the name of each stockholder. The Corporation shall not be required to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, for a period of at least 10 days prior to the meeting: (a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, (b) during ordinary business hours at the principal place of business of the Corporation or (c) in any other manner provided by law. If the meeting is to be held at a place, the list shall be produced and kept at the time and place of the meeting during the whole time of the meeting, and may be examined by any stockholder who is present. If the meeting is to be held solely by means of remote communication, such list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. The stock ledger shall be the only evidence as to the stockholders who are entitled to examine the list required by this Section 2.5 or to vote in person or by proxy at any meeting of stockholders.

2.6 Quorum. Except as otherwise provided by law or these Bylaws, the holders of a majority of the shares of the capital stock of the Corporation entitled to vote at the meeting, present in person or represented by proxy, shall constitute a quorum for the transaction of business. Where a separate class vote by a class or classes or series is required, a majority of the shares of such class or classes or series present in person or represented by proxy shall constitute a quorum entitled to take action with respect to that vote on that matter.

2.7 Adjournments. Any meeting of stockholders may be adjourned to any other time and to any other place at which a meeting of stockholders may be held under these Bylaws by the chairperson of the meeting or, in the absence of such person, by any officer entitled to preside at or to act as secretary of such meeting, or by the holders of a majority of the shares of stock present or represented at the meeting and entitled to vote, although less than a quorum. When a meeting is adjourned to another place, date or time, written notice need not be given of the adjourned meeting if the date, time and place, if any, thereof, and the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting, are announced at the meeting at which the adjournment is taken; provided, however, that if the date of any adjourned meeting is more than 30 days after the date for which the meeting was originally noticed, or if the Board fixes a new record date for determining the stockholders entitled to vote at the adjourned meeting in accordance with Section 5.5, written notice of the place, if any, date and time of the adjourned meeting and the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting, shall be given in conformity herewith. At the adjourned meeting, the Corporation may transact any business which might have been transacted at the original meeting.

2.8 Voting and Proxies. Each stockholder shall have one vote for each share of stock entitled to vote held of record by such stockholder and a proportionate vote for each fractional share so held, unless otherwise provided by law or in the Certificate of Incorporation. Each stockholder of record entitled to vote at a meeting of stockholders may vote in person or may authorize any other person or persons to vote or act for such stockholder by a written proxy executed by the stockholder or the stockholder's authorized agent or by an electronic transmission permitted by law and delivered to the Secretary of the Corporation. Any copy, facsimile transmission or other reliable reproduction of the writing or electronic transmission created pursuant to this section may be substituted or used in lieu of the original writing or electronic transmission for any and all purposes for which the original writing or transmission could be used, provided that such copy, facsimile transmission or other reproduction shall be a complete reproduction of the entire original writing or electronic transmission.

2.9 Action at Meeting.

(a) At any meeting of stockholders for the election of one or more directors at which a quorum is present, the election shall be determined by a plurality of the votes cast by the stockholders entitled to vote at the election.

(b) All other matters shall be determined by a majority in voting power of the shares present in person or represented by proxy and entitled to vote on the matter (or if there are two or more classes of stock entitled to vote as separate classes, then in the case of each such class, a majority of the shares of each such class present in person or represented by proxy and entitled to vote on the matter shall decide such matter), provided that a quorum is present, except when a different vote is required by express provision of law, the Certificate of Incorporation or these Bylaws.

(c) All voting, including on the election of directors, but excepting where otherwise required by law, may be by a voice vote; provided, that upon demand therefor by a stockholder entitled to vote or the stockholder's proxy, a vote by ballot shall be taken. Each ballot shall state the name of the stockholder or proxy voting and such other information as may be required under the procedure established for the meeting. The Corporation may, and to the extent required by law, shall, in advance of any meeting of stockholders, appoint one or more inspectors to act at the meeting and make a written report thereof. The Corporation may designate one or more persons as an alternate inspector to replace any inspector who fails to act. If no inspector or alternate is able to act at a meeting of stockholders, the person presiding at the meeting may, and to the extent required by law, shall, appoint one or more inspectors to act at the meeting. Each inspector, before entering upon the discharge of his duties, shall take and sign an oath to faithfully execute the duties of inspector with strict impartiality and according to the best of his ability.

2.10 Stockholder Business (Other Than the Election of Directors).

(a) Only such business (other than nominations for election of directors, which is governed by Section 3.16 of these Bylaws) shall be conducted as shall have been properly brought before an annual meeting. To be properly brought before an annual meeting, business must be either (i) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board, (ii) otherwise properly brought before the meeting by or at the direction of the Board, or (iii) otherwise properly brought before the meeting by a stockholder who (A) is a stockholder of record (and, with respect to any beneficial owner, if different, on whose behalf such business is proposed, only if such beneficial owner is the beneficial owner of shares of the Corporation) both at the time of giving the notice provided for in this Section 2.10 and at the time of the meeting, (B) is entitled to vote at the meeting and (C) has complied with the notice procedures set forth in this Section 2.10 as to such business. For any business to be properly brought before an annual meeting by a stockholder (other than nominations for election of directors, which is governed by Section 3.16 of these Bylaws), it must be a proper matter for stockholder action under the DGCL, and the stockholder must have given timely notice thereof in writing to the Secretary of the Corporation. To be timely, a stockholder's notice shall be in writing and must be received at the Corporation's principal executive offices not later than ninety (90) days nor earlier than one hundred twenty (120) days prior to the first anniversary of the date of the preceding year's annual meeting as first specified in the Corporation's notice of meeting (without regard to any postponements or adjournments of such meeting after such notice was first sent), provided, however, that if no annual meeting was held in the previous year or the date of the annual meeting is advanced by more than thirty (30) days, or delayed (other than as a result of adjournment) by more than thirty (30) days from the anniversary of the previous year's annual meeting, notice by the stockholder to be timely must be received not later than the close of business on the later of the ninetieth (90^{th}) day prior to such annual meeting or the tenth (10^{th}) day following the date on which public announcement of the date of such meeting is first made. "***Public announcement***" for purposes hereof shall have the meaning set forth in Section 3.16(c) of these Bylaws. In no event shall the public announcement of an adjournment or postponement of an annual meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above. For business to be properly brought before a special meeting by a stockholder, the business must be limited to the purpose or purposes set forth in a request under Section 2.3.

(b) A stockholder's notice to the Secretary of the Corporation shall set forth (i) as to each matter the stockholder proposes to bring before the annual meeting, a brief description of the business desired to be brought before the annual meeting and the text of the proposal or business, including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the Bylaws of the Corporation, the language of the proposed amendment, and (ii) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the proposal is being made, and any of their respective affiliates or associates (each within the meaning of Rule 12b-2 under the Securities Exchange Act of 1934, as amended (the "***Exchange Act***")) or others acting in concert therewith (each, a "***Proposing Person***"), (A) the name and address, as they appear on the Corporation's books, of the stockholder proposing such business and of any other Proposing Person, (B) the class or series and number of shares of the Corporation which are owned beneficially and of record by the stockholder and any other Proposing Person as of the date of the notice, and a representation that the stockholder will notify the Corporation in writing within five (5) business days after the record date for voting at the meeting of the class or series and number of shares of the Corporation owned beneficially and of record by the stockholder and any other Proposing Person as of the record date for voting at the meeting, (C) a representation that the stockholder intends to appear in person or by proxy at the meeting to propose the business specified in the notice, (D) any material interest of the stockholder and any other Proposing Person in such business, (E) the following information regarding the ownership interests of the stockholder and any other Proposing Person which shall be supplemented in writing by the stockholder not later than ten (10) days after the record date for voting at the meeting to disclose such interests as of such record date: (1) a description of any option, warrant, convertible security, stock appreciation right, or similar right with an exercise or conversion privilege or a settlement payment or mechanism at a price related to any class or series of shares of the Corporation or with a value derived in whole or in part from the value of any class or series of shares of the Corporation, any derivative or synthetic arrangement having the characteristics of a long position in any class or series of shares of the Corporation, or any contract, derivative, swap or other transaction or series of transactions designed to produce economic benefits and risks that correspond substantially to the ownership of any class or series of shares of the Corporation, including due to the fact that the value of such contract, derivative, swap or other transaction or series of transactions is determined by reference to the price, value or volatility of any class or series of shares of the Corporation, whether or not such instrument, contract or right shall be subject to settlement in the underlying class or series of shares of the Corporation, through the delivery of cash or other property, or otherwise, and without regard to whether the stockholder of record or any other Proposing Person may have entered into transactions that hedge or mitigate the economic effect of such instrument, contract or right (a "***Derivative Instrument***") directly or indirectly owned beneficially by such stockholder or other Proposing Person, and any other direct or indirect opportunity to profit or share in any profit derived from any increase or decrease in the value of shares of the Corporation; (2) a description of any proxy, contract, arrangement, understanding, or relationship pursuant to which such stockholder or other Proposing Person has a right to vote any shares of any security of the Corporation; (3) a description of any agreement, arrangement, understanding, relationship or otherwise, including any repurchase or similar so-called "stock borrowing" agreement or arrangement, engaged in, directly or indirectly, by such stockholder or other Proposing Person, the purpose or effect of which is to mitigate loss to, reduce the economic risk (of ownership or otherwise) of any class or series of the shares of the Corporation by, manage the risk of share price changes for, or increase or decrease the voting power of, such stockholder or other Proposing Person with respect to any class or series of the shares of the Corporation, or which provides, directly or indirectly, the opportunity to profit or share in any profit derived from any decrease in the price or value of any class or series of the shares of the Corporation ("***Short Interests***"); (4) a description of any rights to dividends on the shares of the Corporation owned beneficially by such stockholder or other Proposing Person that are separated or separable from the underlying shares of the Corporation; (5) a description of any proportionate interest in shares of the Corporation or Derivative Instruments held, directly or indirectly, by a general or limited partnership in which such stockholder or other Proposing Person is a general partner or, directly or indirectly, beneficially owns an interest in a general partner; (6) a description of any performance-related fees (other than an asset-based fee) to which such stockholder or other Proposing Person is entitled based on any increase or decrease in the value of shares of the Corporation or Derivative Instruments, if any, as of the date of such notice, including, without limitation, any such interests held by members of such stockholder's or other Proposing Person's immediate family sharing the same household; (7) a description of any significant equity interests or any Derivative Instruments or Short Interests in any principal competitor of the Corporation held by such stockholder or other Proposing Person; and (8) a description of any direct or indirect interest of such stockholder or other Proposing Person in any contract with the Corporation, any affiliate of the Corporation or any principal competitor of the Corporation (including, in any such case, any employment agreement, collective bargaining agreement or consulting agreement), and (F) any other information relating to such stockholder or other Proposing Person, if any, that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for, as applicable, the proposal and/or for the election of directors in a contested election pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder.

(c) Unless otherwise required by law, if the stockholder (or a qualified representative of the stockholder) does not appear at the annual meeting of stockholders to present the proposed business, such proposed business shall not be transacted, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this section, to be considered a qualified representative of the stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or authorized by a writing executed by such stockholder (or a reliable reproduction or electronic transmission of the writing) delivered to the Corporation prior to the making of such proposal at such meeting by such stockholder stating that such person is authorized to act for such stockholder as proxy at the meeting of stockholders.

(d) Notwithstanding the foregoing provisions of this Section 2.10, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth in this Section 2.10; *provided however*, that any references in this Section 2.10 to the Exchange Act or the rules and regulations promulgated thereunder are not intended to and shall not limit any requirements applicable to proposals as to any business to be considered pursuant to this Section 2.10. Nothing in this Section 2.10 shall be deemed to affect any rights (i) of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act or (ii) of the holders of any series of preferred stock if and to the extent provided for under law, the Certificate of Incorporation or these Bylaws.

(e) Notwithstanding any provisions to the contrary, the notice requirements set forth in subsections (a) and (b) above shall be deemed satisfied by a stockholder if the stockholder has notified the Corporation of the stockholder's intention to present a proposal at an annual meeting in compliance with applicable rules and regulations promulgated under the Exchange Act and such stockholder's proposal has been included in a proxy statement that has been prepared by the Corporation to solicit proxies for such annual meeting.

2.11 Conduct of Business. At every meeting of the stockholders, the Chairperson of the Board, or, in his absence, the Chief Executive Officer, or, in his absence, such other person as may be appointed by the Board, shall act as chairperson. The Secretary of the Corporation or a person designated by the chairperson of the meeting shall act as secretary of the meeting. Unless otherwise approved by the chairperson of the meeting, attendance at the stockholders' meeting is restricted to stockholders of record, persons authorized in accordance with Section 2.8 of these Bylaws to act by proxy, and officers of the Corporation.

The chairperson of the meeting shall call the meeting to order, establish the agenda, and conduct the business of the meeting in accordance therewith or, at the chairperson's discretion, the business of the meeting may be conducted otherwise in accordance with the wishes of the stockholders in attendance. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting shall be announced at the meeting.

The chairperson shall also conduct the meeting in an orderly manner, rule on the precedence of, and procedure on, motions and other procedural matters, and exercise discretion with respect to such procedural matters with fairness and good faith toward all those entitled to take part. Without limiting the foregoing, the chairperson may (a) restrict attendance at any time to bona fide stockholders of record and their proxies and other persons in attendance at the invitation of the presiding officer or Board, (b) restrict use of audio or video recording devices at the meeting, and (c) impose reasonable limits on the amount of time taken up at the meeting on discussion in general or on remarks by any one stockholder. Should any person in attendance become unruly or obstruct the meeting proceedings, the chairperson shall have the power to have such person removed from the meeting. Notwithstanding anything in the Bylaws to the contrary, no business shall be conducted at a meeting except in accordance with the procedures set forth in Section 2.10, this Section 2.11 and Section 3.12. The chairperson of the meeting, in addition to making any other determinations that may be appropriate to the conduct of the meeting, shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with the provisions of Section 2.10, this Section 2.11 and Section 3.12, and if he should so determine that any proposed nomination or business is not in compliance with such sections, he shall so declare to the meeting that such defective nomination or proposal shall be disregarded.

2.12 Stockholder Action Without Meeting. Any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of stockholders of the Corporation and may not be effected by any consent in writing by such stockholders; provided, however, that any action required or permitted to be taken by the holders of preferred stock, voting separately as a series or separately as a class with one or more other such series, may be taken without a meeting, without prior notice and without a vote, to the extent expressly so provided by the applicable certificate of designation relating to such series of preferred stock.

2.13 Meetings by Remote Communication. If authorized by the Board, and subject to such guidelines and procedures as the Board may adopt, stockholders and proxy holders not physically present at a meeting of stockholders may, by means of remote communication, participate in the meeting and be deemed present in person and vote at the meeting, whether such meeting is to be held at a designated place or solely by means of remote communication, provided that (a) the Corporation shall implement reasonable measures to verify that each person deemed present and permitted to vote at the meeting by means of remote communication is a stockholder or proxy holder, (b) the Corporation shall implement reasonable measures to provide such stockholders and proxy holders a reasonable opportunity to participate in the meeting and to vote on matters submitted to the stockholders, including an opportunity to read or hear the proceedings of the meeting substantially concurrently with such proceedings, and (c) if any stockholder or proxy holder votes or takes other action at the meeting by means of remote communication, a record of such vote or other action shall be maintained by the Corporation.

ARTICLE III
BOARD OF DIRECTORS

3.1 General Powers. The business and affairs of the Corporation shall be managed by or under the direction of a Board, who may exercise all of the powers of the Corporation except as otherwise provided by law or the Certificate of Incorporation. In the event of a vacancy on the Board, the remaining directors, except as otherwise provided by law, may exercise the powers of the full Board until the vacancy is filled.

3.2 Election. Subject to the rights of the holders of any series of preferred stock to elect directors under specified circumstances, members of the Board shall be elected by a plurality of the votes of the shares present in person or represented by proxy at the meeting and entitled to vote in the election of directors; *provided that*, whenever the holders of any class or series of capital stock of the Corporation are entitled to elect one or more directors pursuant to the provisions of the Certificate of Incorporation (including, but not limited to, any duly authorized certificate of designation), such directors shall be elected by a plurality of the votes of such class or series present in person or represented by proxy at the meeting and entitled to vote in the election of such directors. Elections of directors need not be by written ballot.

3.3 Number and Term. Subject to the rights of the holders of any series of preferred stock to elect directors under specified circumstances, the number of directors shall initially be six and, thereafter, shall be fixed from time to time exclusively by the Board pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board for adoption).

3.4 Resignations. Any director may resign at any time upon notice given in writing or by electronic transmission to the Board, the Chairperson of the Board, the Chief Executive Officer of the Corporation or the Secretary. The resignation shall take effect at the time specified therein, and if no time is specified, at the time of its receipt. The acceptance of a resignation shall not be necessary to make it effective unless otherwise expressly provided in the resignation.

3.5 Removal. Subject to the rights of the holders of any series of preferred stock to elect directors under specified circumstances, directors may only be removed for cause and only upon the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class.

3.6 Vacancies and Newly Created Directorships. Except as otherwise provided by applicable law, vacancies occurring in any directorship (whether by death, resignation, retirement, disqualification, removal or other cause) and newly created directorships resulting from any increase in the number of directors shall be filled in accordance with the Certificate of Incorporation. Any director elected to fill a vacancy or newly created directorship shall hold office until the next election of the class for which such director shall have been chosen and until his or her successor shall be duly elected and qualified, or until his or her earlier death, resignation, retirement, disqualification or removal.

3.7 Regular Meetings. Regular meetings of the Board may be held without notice at such time and place, either within or without the State of Delaware, as shall be determined from time to time by the Board; *provided that* any director who is absent when such a determination is made shall be given notice of the determination. A regular meeting of the Board may be held without notice immediately after and at the same place as the annual meeting of stockholders.

3.8 Special Meetings. Special meetings of the Board may be called by the Chairperson of the Board, the Chief Executive Officer, the President or a majority of the directors then in office and may be held at any time and place, within or without the State of Delaware.

3.9 Notice of Special Meetings. Notice of any special meeting of directors shall be given to each director by whom it is not waived by the Secretary or by the officer or one of the directors calling the meeting. Notice shall be duly given to each director by (a) giving notice to such director in person or by telephone, electronic transmission or voice message system at least 24 hours in advance of the meeting, (b) sending a facsimile to such director's last known facsimile number, or delivering written notice by hand to such director's last known business or home address, at least 24 hours in advance of the meeting, or (c) mailing written notice to such director's last known business or home address at least three days in advance of the meeting. A notice or waiver of notice of a meeting of the Board need not specify the purposes of the meeting. Unless otherwise indicated in the notice thereof, any and all business may be transacted at a special meeting.

3.10 Participation in Meetings by Telephone Conference Calls or Other Methods of Communication. Directors or any members of any committee designated by the directors may participate in a meeting of the Board or such committee by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation by such means shall constitute presence in person at such meeting.

3.11 Quorum; Adjournment. A majority of the total number of authorized directors shall constitute a quorum at any meeting of the Board. In the absence of a quorum at any such meeting, a majority of the directors present may adjourn the meeting from time to time without further notice other than announcement at the meeting, until a quorum shall be present. Interested directors may be counted in determining the presence of a quorum at a meeting of the Board or at a meeting of a committee which authorizes a particular contract or transaction.

3.12 Action at Meeting. At any meeting of the Board at which a quorum is present, the vote of a majority of those present shall be sufficient to take any action, unless a different vote is specified by law, the Certificate of Incorporation or these Bylaws.

3.13 Action by Written Consent. Any action required or permitted to be taken at any meeting of the Board or of any committee of the Board may be taken without a meeting if all members of the Board or committee, as the case may be, consent to the action in writing or by electronic transmission, and the writings or electronic transmissions are filed with the minutes of proceedings of the Board or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

3.14 Committees. The Board may designate one or more committees, each committee to consist of one or more of the directors of the Corporation, with such lawfully delegated powers and duties as it therefor confers; *provided* that, the committee membership of each committee designated by the Board will comply with the applicable rules of the exchange on which any securities of the Corporation are listed. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members of the committee present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board and subject to the provisions of the DGCL, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Corporation and may authorize the seal of the Corporation to be affixed to all papers which may require it. Each such committee shall keep minutes and make such reports as the Board may from time to time request. Except as the Board may otherwise determine, any committee may make rules for the conduct of its business, but unless otherwise provided by such rules, its business shall be conducted as nearly as possible in the same manner as is provided in these Bylaws for the Board. Unless otherwise provided in the Certificate of Incorporation, these Bylaws or the resolutions of the Board designating the committee, a committee may create one or more subcommittees, each subcommittee consists of one or more members of the committee, and delegate to a subcommittee any or all of the powers and authority of the committee.

3.15 Compensation of Directors. Directors may be paid such compensation for their services and such reimbursement for expenses of attendance at meetings as the Board may from time to time determine. No such payment shall preclude any director from serving the Corporation or any of its parent or subsidiary Corporations in any other capacity and receiving compensation for such service.

3.16 Nomination of Director Candidates. Subject to the rights of holders of any class or series of preferred stock then outstanding, nominations for the election of directors at an annual meeting may be made by (i) the Board or a duly authorized committee thereof or (ii) by any stockholder of the Corporation who is a stockholder of record at the time of giving the notice provided for in paragraphs (b) and (c) of this Section 3.16, who is entitled to vote at the meeting and who complies with the procedures set forth in this Section 3.16.

(a) All nominations by stockholders must be made pursuant to timely notice given in writing to the Secretary of the Corporation. To be timely, a stockholder's nomination for a director to be elected at an annual meeting must be received at the Corporation's principal executive offices not later than ninety (90) days nor earlier than one hundred twenty (120) days prior to the first anniversary of the date of the preceding year's annual meeting as first specified in the Corporation's notice of meeting (without regard to any postponements or adjournments of such meeting after such notice was first sent), provided, however, that if no annual meeting was held in the previous year or the date of the annual meeting is advanced by more than thirty (30) days or delayed (other than as a result of adjournment) by more than thirty (30) days from the first anniversary of the previous year's annual meeting, notice by the stockholder to be timely must be received not later than the close of business on the later of the ninetieth (90^{th}) day prior to such annual meeting or the tenth (10^{th}) day following the date on which public announcement of the date of such meeting is first made. Each such notice shall set forth (i) as to the stockholder and the beneficial owner, if any, on whose behalf the nomination is being made, and any of their respective affiliates or associates or others acting in concert therewith (each, a "***Nominating Person***"), the name and address, as they appear on the Corporation's books, of the stockholder who intends to make the nomination and of any other Nominating Person, (ii) the class or series and number of shares of the Corporation which are owned beneficially and of record by the stockholder and any other Nominating Person as of the date of the notice, and a representation that the stockholder will notify the Corporation in writing within five (5) business days after the record date for voting at the meeting of the class or series and number of shares of the Corporation owned beneficially and of record by the stockholder and any other Nominating Person as of the record date for voting at the meeting, (iii) a representation that the stockholder intends to appear in person or by proxy at the meeting to nominate the nominee specified in the notice, (iv) the following information regarding the ownership interests of the stockholder and any other Nominating Person, which shall be supplemented in writing by the stockholder not later than ten (10) days after the record date for notice of the meeting to disclose such interests as of such record date: (A) a description of any Derivative Instrument directly or indirectly owned beneficially by such stockholder or other Nominating Person, and any other direct or indirect opportunity to profit or share in any profit derived from any increase or decrease in the value of shares of the Corporation; (B) a description of any proxy, contract, arrangement, understanding, or relationship pursuant to which such stockholder or other Nominating Person has a right to vote any shares of any security of the Corporation; (C) a description of any Short Interests in any securities of the Corporation directly or indirectly owned beneficially by such stockholder or other Nominating Person; (D) a description of any rights to dividends on the shares of the Corporation owned beneficially by such stockholder or other Nominating Person that are separated or separable from the underlying shares of the Corporation; (E) a description of any proportionate interest in shares of the Corporation or Derivative Instruments held, directly or indirectly, by a general or limited partnership in which such stockholder or other Nominating Person is a general partner or, directly or indirectly, beneficially owns an interest in a general partner; (F) a description of any performance-related fees (other than an asset-based fee) to which such stockholder or other Nominating Person is entitled based on any increase or decrease in the value of shares of the Corporation or Derivative Instruments, if any, as of the date of such notice, including, without limitation, any such interests held by members of such stockholder's or other Nominating Person's immediate family sharing the same household; (G) a description of any significant equity interests or any Derivative Instruments or Short Interests in any principal competitor of the Corporation held by such stockholder or other Nominating Person; and (H) a description of any direct or indirect interest of such stockholder or other Nominating Person in any contract with the Corporation, any affiliate of the Corporation or any principal competitor of the Corporation (including, in any such case, any employment agreement, collective bargaining agreement or consulting agreement), (v) a description of all arrangements or understandings between the stockholder or other Nominating Person and each nominee and any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by the stockholder, (vi) a description of all direct and indirect compensation and other material monetary agreements, arrangements and understandings during the past three years, and any other material relationships, between or among such stockholder and any other Nominating Person, on the one hand, and each nominee, and his respective affiliates and associates, or others acting in concert therewith, on the other hand, including, without limitation all information that would be required to be disclosed pursuant to Rule 404 promulgated under Regulation S-K if the stockholder and any Nominating Person, if any, or any affiliate or associate thereof or person acting in concert therewith, were the "registrant" for purposes of such rule and the nominee were a director or executive officer of such registrant, (vii) such other information regarding each nominee as would be required to be included in a proxy statement filed pursuant to the proxy rules of the SEC, had the nominee been nominated, or intended to be nominated, by the Board, and (viii) the signed consent of each nominee to serve as a director of the Corporation if so elected. In no event shall the public announcement of an adjournment or postponement of an annual meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above. Notwithstanding the second sentence of this Section 3.16(b), in the event that the number of directors to be elected at an annual meeting is increased and there is no public announcement by the Corporation naming the nominees for the additional directorships at least 100 days prior to the one-year anniversary of the date of the preceding year's annual meeting as first specified in the Corporation's notice of meeting (without regard to any postponements or adjournments of such meeting after such notice was first sent), a stockholder's notice required by this Section 3.16(b) shall also be considered timely, but only with respect to nominees for the additional directorships, if it shall be delivered to the Secretary at the principal executive offices of the Corporation not later than the close of business on the 10th day following the day on which such public announcement is first made by the Corporation.

(b) Subject to the rights of holders of any class or series of preferred stock then outstanding, nominations of persons for election to the Board may be made at a special meeting of stockholders at which directors are to be elected pursuant to the Corporation's notice of meeting (i) by or at the direction of the Board or a committee thereof or (ii) by any stockholder who complies with the notice procedures set forth in this Section 3.16 and who is a stockholder of record at the time such notice is delivered to the Secretary of the Corporation. In the event the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board, any such stockholder may nominate a person or persons (as the case may be), for election to such position(s) as are specified in the Corporation's notice of meeting, if the stockholder's notice as required by Section 3.12(a) is delivered to the Secretary at the principal executive offices of the Corporation not earlier than ninety (90) days prior to such special meeting and not later than the close of business on the later of the sixtieth (60^{th}) day prior to such special meeting or the tenth (10^{th}) day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board to be elected at such meeting. In no event shall the public announcement of an adjournment or postponement of a special meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above.

(c) For purposes of these Bylaws, "***public announcement***" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed or furnished by the Corporation with the SEC pursuant to Section 13, 14 or 15(d) of the Exchange Act.

(d) Only those persons who are nominated in accordance with the procedures set forth in this section shall be eligible for election as directors at any meeting of stockholders. The Chairperson of the Board or Secretary may, if the facts warrant, determine that a notice received by the Corporation relating to a nomination proposed to be made does not satisfy the requirements of this Section 3.16 (including if the stockholder does not provide the updated information required under Section 3.12(b) to the Corporation within five (5) business days following the record date for the meeting), and if it be so determined, shall so declare and any such nomination shall not be introduced at such meeting of stockholders, notwithstanding that proxies in respect of such vote may have been received. The chairperson of the meeting shall have the power and duty to determine whether a nomination brought before the meeting was made in accordance with the procedures set forth in this section, and, if any nomination is not in compliance with this section (including if the stockholder does not provide the updated information required under Section 3.12(b) to the Corporation within five (5) business days following the record date for the meeting), to declare that such defective nomination shall be disregarded, notwithstanding that proxies in respect of such vote may have been received. Unless otherwise required by law, if the stockholder (or a qualified representative of the stockholder) does not appear at the annual meeting or a special meeting of stockholders of the Corporation to present a nomination, such nomination shall be disregarded, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Section 3.16, to be considered a qualified representative of the stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or authorized by a writing executed by such stockholder (or a reliable reproduction or electronic transmission of the writing) delivered to the Corporation prior to the making of such nomination at such meeting by such stockholder stating that such person is authorized to act for such stockholder as proxy at the meeting of stockholders.

(e) Notwithstanding the foregoing provisions of this Section 3.16, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth in this Section 3.16; provided however, that any references in this Section 3.16 to the Exchange Act or the rules promulgated thereunder are not intended to and shall not limit any requirements applicable to nominations to be considered pursuant to this Section 3.16. Nothing in this Section 3.16 shall be deemed to affect any rights of the holders of any series of preferred stock if and to the extent provided for under law, the Certificate of Incorporation or these Bylaws.

3.17 Reliance on Books and Records. A member of the Board, or a member of any committee designated by the Board shall, in the performance of such members' duties, be fully protected in relying in good faith upon records of the Corporation and upon such information, opinions, reports or statements presented to the Corporation by any of the Corporation's officers or employees, or committees of the Board, or by any other person as to matters the member reasonably believes are within such other person's professional or expert competence and who has been selected with reasonable care by or on behalf of the Corporation.

ARTICLE IV
OFFICERS

4.1 Enumeration. The officers of the Corporation shall consist of a Chief Executive Officer, a President, a Secretary, a Treasurer, a Chief Financial Officer and such other officers with such other titles as the Board shall determine, including, at the discretion of the Board, a Chairperson of the Board and one or more Vice Presidents and Assistant Secretaries. The Board may appoint such other officers as it may deem appropriate.

4.2 Election. Officers shall be elected annually by the Board at its first meeting following the annual meeting of stockholders. Officers may be appointed by the Board at any other meeting.

4.3 Qualification. No officer need be a stockholder. Any two or more offices may be held by the same person.

4.4 Tenure. Except as otherwise provided by law, by the Certificate of Incorporation or by these Bylaws, each officer shall hold office until such officer's successor is elected and qualified, unless a different term is specified in the vote appointing the officer, or until such officer's earlier death, resignation or removal.

4.5 Resignation and Removal. Any officer may resign by delivering his written resignation to the Corporation at its principal office or to the President or Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some other event. Any officer elected by the Board may be removed at any time, with or without cause, by the Board.

4.6 Chairperson of the Board. The Board may appoint a Chairperson of the Board. If the Board appoints a Chairperson of the Board, the Chairperson of the Board shall perform such duties and possess such powers as are assigned to the Chairperson by the Board and these Bylaws. Unless otherwise provided by the Board, the Chairperson of the Board shall preside at all meetings of the Board.

4.7 Chief Executive Officer. The Chief Executive Officer of the Corporation shall, subject to the direction of the Board, have general supervision, direction and control of the business and the officers of the Corporation. The Chief Executive Officer shall preside at all meetings of the stockholders and, in the absence or nonexistence of a Chairperson of the Board, at all meetings of the Board. The Chief Executive Officer shall have the general powers and duties of management usually vested in the chief executive officer of a Corporation, including general supervision, direction and control of the business and supervision of other officers of the Corporation, and shall have such other powers and duties as may be prescribed by the Board or these Bylaws.

4.8 President. Subject to the direction of the Board and such supervisory powers as may be given by these Bylaws or the Board to the Chairperson of the Board or the Chief Executive Officer, if such titles be held by other officers, the President shall have general supervision, direction and control of the business and supervision of other officers of the Corporation. Unless otherwise designated by the Board, the President shall be the Chief Executive Officer of the Corporation. The President shall have such other powers and duties as may be prescribed by the Board or these Bylaws. The President shall have power to sign stock certificates, contracts and other instruments of the Corporation which are authorized and shall have general supervision and direction of all of the other officers, employees and agents of the Corporation, other than the Chairperson of the Board and the Chief Executive Officer.

4.9 Vice Presidents. Any Vice President shall perform such duties and possess such powers as the Board, the Chief Executive Officer or the President may from time to time prescribe. In the event of the absence, inability or refusal to act of the President, the Vice President (or if there shall be more than one, the Vice Presidents in the order determined by the Board) shall perform the duties of the President and when so performing shall have all the powers of and be subject to all the restrictions upon the President. The Board may assign to any Vice President the title of Executive Vice President, Senior Vice President or any other title selected by the Board.

4.10 Secretary and Assistant Secretaries. The Secretary shall perform such duties and shall have such powers as the Board or the President may from time to time prescribe. In addition, the Secretary shall perform such duties and have such powers as are set forth in these Bylaws and as are incident to the office of the Secretary, including, without limitation, the duty and power to give notices of all meetings of stockholders and special meetings of the Board, to keep a record of the proceedings of all meetings of stockholders and the Board, to maintain a stock ledger and prepare lists of stockholders and their addresses as required, to be custodian of corporate records and the corporate seal and to affix and attest to the same on documents.

Any Assistant Secretary shall perform such duties and possess such powers as the Board, the Chief Executive Officer, the President or the Secretary may from time to time prescribe. In the event of the absence, inability or refusal to act of the Secretary, the Assistant Secretary (or if there shall be more than one, the Assistant Secretaries in the order determined by the Board) shall perform the duties and exercise the powers of the Secretary.

In the absence of the Secretary or any Assistant Secretary at any meeting of stockholders or directors, the person presiding at the meeting shall designate a temporary secretary to keep a record of the meeting.

4.11 Treasurer. The Treasurer shall perform such duties and have such powers as are incident to the office of treasurer, including without limitation, the duty and power to keep and be responsible for all funds and securities of the Corporation, to maintain the financial records of the Corporation, to deposit funds of the Corporation in depositories as authorized, to disburse such funds as authorized, to make proper accounts of such funds, and to render as required by the Board accounts of all such transactions and of the financial condition of the Corporation.

4.12 Chief Financial Officer. The Chief Financial Officer shall perform such duties and shall have such powers as may from time to time be assigned to the Chief Financial Officer by the Board, the Chief Executive Officer or the President. Unless otherwise designated by the Board, the Chief Financial Officer shall be the Treasurer of the Corporation.

4.13 Salaries. Officers of the Corporation shall be entitled to such salaries, compensation or reimbursement as shall be fixed or allowed from time to time by the Board.

4.14 Delegation of Authority. The Board may from time to time delegate the powers or duties of any officer to any other officers or agents, notwithstanding any provision hereof.

ARTICLE V
CAPITAL STOCK

5.1 Issuance of Stock. Subject to the provisions of the Certificate of Incorporation, the whole or any part of any unissued balance of the authorized capital stock of the Corporation or the whole or any part of any unissued balance of the authorized capital stock of the Corporation held in its treasury may be issued, sold, transferred or otherwise disposed of by vote of the Board in such manner, for such consideration and on such terms as the Board may determine.

5.2 Stock Certificates. The shares of stock of the Corporation shall be represented by certificates, provided that the Board may provide by resolution or resolutions that some or all of any class or series of stock of the Corporation shall be uncertificated shares; provided, however, that no such resolution shall apply to shares represented by a certificate until such certificate is surrendered to the Corporation. Every holder of stock of the Corporation represented by certificates, and, upon written request to the Corporation's transfer agent or registrar, any holder of uncertificated shares, shall be entitled to have a certificate, in such form as may be prescribed by law and by the Board, certifying the number and class of shares of stock owned by such stockholder in the Corporation. Each such certificate shall be signed by, or in the name of the Corporation by, the Chairperson or Vice Chairperson, if any, of the Board, or the President or a Vice President, and the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary of the Corporation. Any or all of the signatures on the certificate may be a facsimile.

Each certificate for shares of stock which are subject to any restriction on transfer pursuant to the Certificate of Incorporation, the Bylaws, applicable securities laws or any agreement among any number of stockholders or among such holders and the Corporation shall have conspicuously noted on the face or back of the certificate either the full text of the restriction or a statement of the existence of such restriction.

5.3 Transfers. Except as otherwise established by rules and regulations adopted by the Board, and subject to applicable law, shares of stock may be transferred on the books of the Corporation: (i) in the case of shares represented by a certificate, by the surrender to the Corporation or its transfer agent of the certificate representing such shares properly endorsed or accompanied by a written assignment or power of attorney properly executed, and with such proof of authority or authenticity of signature as the Corporation or its transfer agent may reasonably require; and (ii) in the case of uncertificated shares, upon the receipt of proper transfer instructions from the registered owner thereof. Except as may be otherwise required by law, the Certificate of Incorporation or the Bylaws, the Corporation shall be entitled to treat the record holder of stock as shown on its books as the owner of such stock for all purposes, including the payment of dividends and the right to vote with respect to such stock, regardless of any transfer, pledge or other disposition of such stock until the shares have been transferred on the books of the Corporation in accordance with the requirements of these Bylaws.

5.4 Lost, Stolen or Destroyed Certificates. The Corporation may issue a new certificate in place of any previously issued certificate alleged to have been lost, stolen, or destroyed, or it may issue uncertificated shares if the shares represented by such certificate have been designated as uncertificated shares in accordance with Section 5.2, upon such terms and conditions as the Board may prescribe, including the presentation of reasonable evidence of such loss, theft or destruction and the giving of such indemnity as the Board may require for the protection of the Corporation or any transfer agent or registrar.

5.5 Record Dates. The Board may fix in advance a record date for the determination of the stockholders entitled to vote at any meeting of stockholders. Such record date shall not precede the date on which the resolution fixing the record date is adopted and shall not be more than 60 nor less than 10 days before the date of such meeting.

If no record date is fixed by the Board, the record date for determining the stockholders entitled to notice of or to vote at a meeting of stockholders shall be the close of business on the day before the date on which notice is given, or, if notice is waived, the close of business on the day before the date on which the meeting is held.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board may fix a new record date for the determination of stockholders entitled to vote at the adjourned meeting, and in such case shall also fix as the record date for stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for the determination of stockholders entitled to vote in accordance with the foregoing provisions.

The Board may fix in advance a record date (a) for the determination of stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights in respect of any change, concession or exchange of stock, or (b) for the purpose of any other lawful action. Any such record date shall not precede the date on which the resolution fixing the record date is adopted and shall not be more than 60 days prior to the action to which such record date relates. If no record date is fixed by the Board, the record date for determining stockholders entitled to express consent to corporate action in writing without a meeting when no prior action by the Board is necessary shall be the date on which the first written consent is expressed. The record date for determining stockholders for any other purpose shall be the close of business on the day on which the Board adopts the resolution relating to such purpose.

ARTICLE VI
GENERAL PROVISIONS

6.1 Fiscal Year. The fiscal year of the Corporation shall be as fixed by the Board.

6.2 Waiver of Notice. Whenever any notice whatsoever is required to be given by law, by the Certificate of Incorporation or by these Bylaws, a waiver of such notice either in writing signed by the person entitled to such notice or such person's duly authorized attorney, or by electronic transmission or any other method permitted under the DGCL, whether before, at or after the time stated in such waiver, or the appearance of such person or persons at such meeting in person or by proxy, shall be deemed equivalent to such notice. Neither the business nor the purpose of any meeting need be specified in such a waiver. Attendance at any meeting shall constitute waiver of notice except attendance for the sole purpose of objecting to the timeliness or manner of notice.

6.3 Actions with Respect to Securities of Other Corporations. Except as the Board may otherwise designate, the Chief Executive Officer or President or any officer of the Corporation authorized by the Chief Executive Officer or President shall have the power to vote and otherwise act on behalf of the Corporation, in person or by proxy, and may waive notice of, and act as, or appoint any person or persons to act as, proxy or attorney-in-fact to this Corporation (with or without power of substitution) at any meeting of stockholders or shareholders (or with respect to any action of stockholders) of any other Corporation or organization, the securities of which may be held by this Corporation and otherwise to exercise any and all rights and powers that this Corporation may possess by reason of this Corporation's ownership of securities in such other Corporation or other organization.

6.4 Evidence of Authority. A certificate by the Secretary, or an Assistant Secretary, or a temporary Secretary, as to any action taken by the stockholders, directors, a committee or any officer or representative of the Corporation shall as to all persons who rely on the certificate in good faith be conclusive evidence of such action.

6.5 Certificate of Incorporation. All references in these Bylaws to the Certificate of Incorporation shall be deemed to refer to the Certificate of Incorporation of the Corporation, as amended and in effect from time to time.

6.6 Severability. Any determination that any provision of these Bylaws is for any reason inapplicable, illegal or ineffective shall not affect or invalidate any other provision of these Bylaws.

6.7 Pronouns. All pronouns used in these Bylaws shall be deemed to refer to the masculine, feminine or neuter, singular or plural, as the identity of the person or persons may require.

6.8 Notices. Except as otherwise specifically provided herein or required by law, all notices required to be given to any stockholder, director, officer, employee or agent of the Corporation shall be in writing and may in every instance be effectively given by hand delivery to the recipient thereof, by depositing such notice in the mails, postage paid, or by sending such notice by commercial courier service, or by facsimile or other electronic transmission, provided that notice to stockholders by electronic transmission shall be given in the manner provided in Section 232 of the DGCL. Any such notice shall be addressed to such stockholder, director, officer, employee or agent at his, her or its last known address as the same appears on the books of the Corporation. The time when such notice shall be deemed to be given shall be the time such notice is received by such stockholder, director, officer, employee or agent, or by any person accepting such notice on behalf of such person, if delivered by hand, facsimile, other electronic transmission or commercial courier service, or the time such notice is dispatched, if delivered through the mails. Without limiting the manner by which notice otherwise may be given effectively, notice to any stockholder shall be deemed given: (a) if by facsimile, when directed to a number at which the stockholder has consented to receive notice; (b) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice; (c) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of (i) such posting and (ii) the giving of such separate notice; (d) if by any other form of electronic transmission, when directed to the stockholder; and (e) if by mail, when deposited in the mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the Corporation.

6.9 Reliance Upon Books, Reports and Records. Each director, each member of any committee designated by the Board, and each officer of the Corporation shall, in the performance of such individual's duties, be fully protected in relying in good faith upon the books of account or other records of the Corporation as provided by law, including reports made to the Corporation by any of its officers, by an independent certified public accountant, or by an appraiser selected with reasonable care.

6.10 Time Periods. In applying any provision of these Bylaws which require that an act be done or not done a specified number of days prior to an event or that an act be done during a period of a specified number of days prior to an event, calendar days shall be used, the day of the doing of the act shall be excluded, and the day of the event shall be included.

6.11 Facsimile Signatures. In addition to the provisions for use of facsimile signatures elsewhere specifically authorized in these Bylaws, facsimile signatures of any officer or officers of the Corporation may be used whenever and as authorized by the Board or a committee thereof.

6.12 Voting of Securities Owned by the Corporation. All stock and other securities of other Corporations owned or held by the Corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board, or, in the absence of such authorization, the Chief Executive Officer, the President, or any Vice President.

ARTICLE VII
AMENDMENTS

7.1 By the Board. Except as otherwise set forth in these Bylaws, these Bylaws may be altered, amended or repealed or new Bylaws may be adopted only in accordance with Article X of the Certificate of Incorporation.

7.2 By the Stockholders. Except as otherwise set forth in these Bylaws, and subject to the Certificate of Incorporation, these Bylaws may be altered, amended or repealed or new Bylaws may be adopted by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the shares of capital stock of the Corporation issued and outstanding and entitled to vote generally in any election of directors, voting together as a single class. Such vote may be held at any annual meeting of stockholders, or at any special meeting of stockholders provided that notice of such alteration, amendment, repeal or adoption of new Bylaws shall have been stated in the notice of such special meeting.

ARTICLE VIII
INDEMNIFICATION OF DIRECTORS AND OFFICERS

8.1 Right to Indemnification. Each person who was or is made a party or is threatened to be made a party to or is involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative ("***proceeding***"), by reason of the fact that such person or a person of whom he or she is the legal representative, is or was a director or officer of the Corporation or is or was serving at the request of the Corporation as a director or officer of another Corporation, or as a controlling person of a partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, whether the basis of such proceeding is alleged action in an official capacity as a director or officer, or in any other capacity while serving as a director or officer, shall be indemnified and held harmless by the Corporation to the fullest extent authorized by the DGCL, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than such law permitted the Corporation to provide prior to such amendment) against all expenses, liability and loss reasonably incurred or suffered by such person in connection therewith and such indemnification shall continue as to a person who has ceased to be a director or officer and shall inure to the benefit of his heirs, executors and administrators; provided, that except as provided in Section 8.2 of this Article VIII, the Corporation shall indemnify any such person seeking indemnity in connection with a proceeding (or part thereof) initiated by such person only if (a) such indemnification is expressly required to be made by law, (b) the proceeding (or part thereof) was authorized by the Board, (c) such indemnification is provided by the Corporation, in its sole discretion, pursuant to the powers vested in the Corporation under the DGCL, or (d) the proceeding (or part thereof) is brought to establish or enforce a right to indemnification or advancement under an indemnity agreement or any other statute or law or otherwise as required under Section 145 of the DGCL. The rights hereunder shall be contract rights and shall include the right to be paid reasonable expenses and attorneys' fees incurred in defending any such proceeding in advance of its final disposition; provided, that the payment of such expenses incurred by a director or officer of the Corporation in his capacity as a director or officer (and not in any other capacity in which service was or is tendered by such person while a director or officer, including, without limitation, service to an employee benefit plan) in advance of the final disposition of such proceeding, shall be made only upon delivery to the Corporation of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it should be determined ultimately by final judicial decision from which there is no further right to appeal that such director or officer is not entitled to be indemnified under this section or otherwise.

8.2 Right of Claimant to Bring Suit. If a claim under Section 8.1 is not paid in full by the Corporation within sixty (60) days after a written claim has been received by the Corporation, or twenty (20) days in the case of a claim for advancement of expenses, the claimant may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim and, if such suit is not frivolous or brought in bad faith, the claimant shall be entitled to be paid also the expense of prosecuting such claim. It shall be a defense to any such action (other than an action brought to enforce a claim for expenses incurred in defending any proceeding in advance of its final disposition where the required undertaking, if any, has been tendered to this Corporation) that the claimant has not met the standards of conduct which make it permissible under the DGCL for the Corporation to indemnify the claimant for the amount claimed. Neither the failure of the Corporation (including its Board, independent legal counsel, or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because the claimant has met the applicable standard of conduct set forth in the DGCL, nor an actual determination by the Corporation (including its Board, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct. In any suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall be entitled to recover such expenses upon a final judicial decision from which there is no further right to appeal that the indemnitee has not met any applicable standard for indemnification set forth in the DGCL. In any suit brought by the indemnitee to enforce a right to indemnification or to an advancement of expenses hereunder, or brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the burden of proving that the indemnitee is not entitled to be indemnified, or to such advancement of expenses, shall be on the Corporation.

8.3 Indemnification of Employees and Agents. The Corporation may, to the extent authorized from time to time by the Board, grant rights to indemnification, and to the advancement of related expenses, to any employee or agent of the Corporation to the fullest extent of the provisions of this Article VIII with respect to the indemnification of and advancement of expenses to directors and officers of the Corporation.

8.4 Non-Exclusivity of Rights. The rights conferred on any person in this Article VIII shall not be exclusive of any other right which such persons may have or hereafter acquire under any statute, provision of the Certificate of Incorporation, Bylaw, agreement, vote of stockholders or disinterested directors or otherwise.

8.5 Indemnification Contracts. The Board is authorized to enter into a contract with any director, officer, employee or agent of the Corporation, or any person serving at the request of the Corporation as a director, officer, employee or agent of another Corporation, partnership, joint venture, trust or other enterprise, including employee benefit plans, providing for indemnification rights equivalent to or, if the Board so determines, greater than, those provided for in this Article VIII.

8.6 Insurance. The Corporation shall maintain insurance to the extent reasonably available, at its expense, to protect itself and any such director, officer, employee or agent of the Corporation or another Corporation, partnership, joint venture, trust or other enterprise against any such expense, liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the DGCL.

8.7 Effect of Amendment. Any amendment, repeal or modification of any provision of this Article VIII shall not adversely affect any right or protection of an indemnitee or his successor in respect of any act or omission occurring prior to such amendment, repeal or modification.

8.8 Reliance. Persons who after the date of the adoption of this provision become or remain directors or officers of the Corporation or who, while a director or officer of the Corporation, become or remain a director, officer, employee or agent of a subsidiary, shall be conclusively presumed to have relied on the rights to indemnity, advance of expenses and other rights contained in this Article VIII in entering into or continuing such service. The rights to indemnification and to the advance of expenses conferred in this Article VIII shall apply to claims made against an indemnitee arising out of acts or omissions which occurred or occur both prior and subsequent to the adoption hereof.

* * *

Exhibit 10.1

AKOYA BIOSCIENCES, INC.

2015 EQUITY INCENTIVE PLAN

1. Purposes of the Plan. The purposes of this Plan are:

   · to attract and retain the best available personnel for positions of substantial responsibility,

   · to provide additional incentive to Employees, Directors and Consultants, and

   · to promote the success of the Company's business.

   The Plan permits the grant of Incentive Stock Options, Nonstatutory Stock Options, Stock Appreciation Rights, Restricted Stock and Restricted Stock Units.

2. Definitions. As used herein, the following definitions will apply:

   (a) "Administrator" means the Board or any of its Committees as will be administering the Plan, in accordance with Section 4 of the Plan.

   (b) "Applicable Laws" means the requirements relating to the administration of equity-based awards under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any foreign country or jurisdiction where Awards are, or will be, granted under the Plan.

   (c) "Award" means, individually or collectively, a grant under the Plan of Options, Stock Appreciation Rights, Restricted Stock, or Restricted Stock Units.

   (d) "Award Agreement" means the written or electronic agreement setting forth the terms and provisions applicable to each Award granted under the Plan. The Award Agreement is subject to the terms and conditions of the Plan.

   (e) "Board" means the Board of Directors of the Company.

   (f) Change in Control" means the occurrence of any of the following events:

   (i) Change in Ownership of the Company. A change in the ownership of the Company which occurs on the date that any one person, or more than one person acting as a group ("Person"), acquires ownership of the stock of the Company that, together with the stock held by such Person, constitutes more than 50% of the total voting power of the stock of the Company, except that any change in the ownership of the stock of the Company as a result of a private financing of the Company that is approved by the Board will not be considered a Change in Control; or

(ii) Change in Effective Control of the Company. If the Company has a class of securities registered pursuant to Section 12 of the Exchange Act, a change in the effective control of the Company which occurs on the date that a majority of members of the Board is replaced during any twelve (12) month period by Directors whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. For purposes of this clause (ii), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the Company by the same Person will not be considered a Change in Control; or

(iii) Change in Ownership of a Substantial Portion of the Company's Assets. A change in the ownership of a substantial portion of the Company's assets which occurs on the date that any Person acquires (or has acquired during the twelve (12) month period ending on the date of the most recent acquisition by such person or persons) assets from the Company that have a total gross fair market value equal to or more than 50% of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions. For purposes of this subsection (iii), gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets.

For purposes of this Section 2(f), persons will be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

Notwithstanding the foregoing, a transaction will not be deemed a Change in Control unless the transaction qualifies as a change in control event within the meaning of Code Section 409A, as it has been and may be amended from time to time, and any proposed or final Treasury Regulations and Internal Revenue Service guidance that has been promulgated or may be promulgated thereunder from time to time.

Further and for the avoidance of doubt, a transaction will not constitute a Change in Control if: (i) its sole purpose is to change the jurisdiction of the Company's incorporation, or (ii) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction.

(g) "Code" means the Internal Revenue Code of 1986, as amended. Any reference to a section of the Code herein will be a reference to any successor or amended section of the Code.

(h) "Committee" means a committee of Directors or of other individuals satisfying Applicable Laws appointed by the Board, or by the compensation committee of the Board, in accordance with Section 4 hereof.

(i) "Common Stock" means the Class B common stock of the Company.

(j) "Company" means Akoya Biosciences, Inc., a Delaware corporation, or any successor thereto.

(k) "Consultant" means any person, including an advisor, engaged by the Company or a Parent or Subsidiary to render bona fide services to such entity, provided the services (i) are not in connection with the offer or sale of securities in a capital-raising transaction, and (ii) do not directly promote or maintain a market for the Company's securities.

(l) "Director" means a member of the Board.

(m) "Disability" means total and permanent disability as defined in Code Section 22(e)(3), provided that in the case of Awards other than Incentive Stock Options, the Administrator in its discretion may determine whether a permanent and total disability exists in accordance with uniform and non-discriminatory standards adopted by the Administrator from time to time.

(n) "Employee" means any person, including officers and Directors, employed by the Company or any Parent or Subsidiary of the Company. Neither service as a Director nor payment of a director's fee by the Company will be sufficient to constitute "employment" by the Company.

(o) "Exchange Act" means the Securities Exchange Act of 1934, as amended.

(p) "Exchange Program" means a program under which (i) outstanding Awards are surrendered or cancelled in exchange for Awards of the same type (which may have higher or lower exercise prices and different terms), Awards of a different type, and/or cash, (ii) Participants would have the opportunity to transfer any outstanding Awards to a financial institution or other person or entity selected by the Administrator, and/or (iii) the exercise price of an outstanding Award is reduced or increased. The Administrator will determine the terms and conditions of any Exchange Program in its sole discretion.

(q) "Fair Market Value" means, as of any date, the value of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq Global Select Market, the Nasdaq Global Market or the Nasdaq Capital Market of The Nasdaq Stock Market, its Fair Market Value will be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on such exchange or system on the day of determination, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, the Fair Market Value of a Share will be the mean between the high bid and low asked prices for the Common Stock on the day of determination (or, if no bids and asks were reported on that date, as applicable, on the last trading date such bids and asks were reported), as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable; or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value will be determined in good faith by the Administrator.

(r) "Incentive Stock Option" means an Option that by its terms qualifies and is otherwise intended to qualify as an incentive stock option within the meaning of Code Section 422 and the regulations promulgated thereunder.

(s) "Nonstatutory Stock Option" means an Option that by its terms does not qualify or is not intended to qualify as an Incentive Stock Option.

(t) "Option" means a stock option granted pursuant to the Plan.

(u) "Parent" means a "parent corporation," whether now or hereafter existing, as defined in Code Section 424(e).

(v) "Participant" means the holder of an outstanding Award.

(w) "Period of Restriction" means the period during which the transfer of Shares of Restricted Stock are subject to restrictions and therefore, the Shares are subject to a substantial risk of forfeiture. Such restrictions may be based on the passage of time, the achievement of target levels of performance, or the occurrence of other events as determined by the Administrator.

(x) "Plan" means this 2015 Equity Incentive Plan.

(y) "Restricted Stock" means Shares issued pursuant to an Award of Restricted Stock under Section 8 of the Plan, or issued pursuant to the early exercise of an Option.

(z) "Restricted Stock Unit" means a bookkeeping entry representing an amount equal to the Fair Market Value of one Share, granted pursuant to Section 9. Each Restricted Stock Unit represents an unfunded and unsecured obligation of the Company.

(aa) "Service Provider" means an Employee, Director or Consultant.

(bb) "Share" means a share of the Common Stock, as adjusted in accordance with Section 13 of the Plan.

(cc) "Stock Appreciation Right" means an Award, granted alone or in connection with an Option, that pursuant to Section 7 is designated as a Stock Appreciation Right.

(dd) "Subsidiary" means a "subsidiary corporation," whether now or hereafter existing, as defined in Code Section 424(f).

3. Stock Subject to the Plan.

(a) Stock Subject to the Plan. Subject to the provisions of Section 13 of the Plan, the maximum aggregate number of Shares that may be subject to Awards and sold under the Plan is 3,402,536 Shares (increased from 693,335 Shares). The Shares may be authorized but unissued, or reacquired Common Stock.

(b) Lapsed Awards. If an Award expires or becomes unexercisable without having been exercised in full, is surrendered pursuant to an Exchange Program, or, with respect to Restricted Stock or Restricted Stock Units, is forfeited to or repurchased by the Company due to the failure to vest, the unpurchased Shares (or for Awards other than Options or Stock Appreciation Rights the forfeited or repurchased Shares) which were subject thereto will become available for future grant or sale under the Plan (unless the Plan has terminated). With respect to Stock Appreciation Rights, only Shares actually issued pursuant to a Stock Appreciation Right will cease to be available under the Plan; all remaining Shares under Stock Appreciation Rights will remain available for future grant or sale under the Plan (unless the Plan has terminated). Shares that have actually been issued under the Plan under any Award will not be returned to the Plan and will not become available for future distribution under the Plan; provided, however, that if Shares issued pursuant to Awards of Restricted Stock or Restricted Stock Units are repurchased by the Company or are forfeited to the Company due to the failure to vest, such Shares will become available for future grant under the Plan. Shares used to pay the exercise price of an Award or to satisfy the tax withholding obligations related to an Award will become available for future grant or sale under the Plan. To the extent an Award under the Plan is paid out in cash rather than Shares, such cash payment will not result in reducing the number of Shares available for issuance under the Plan. Notwithstanding the foregoing and, subject to adjustment as provided in Section 13, the maximum number of Shares that may be issued upon the exercise of Incentive Stock Options will equal the aggregate Share number stated in Section 3(a), plus, to the extent allowable under Code Section 422 and the Treasury Regulations promulgated thereunder, any Shares that become available for issuance under the Plan pursuant to Section 3(b).

(c) Share Reserve. The Company, during the term of this Plan, will at all times reserve and keep available such number of Shares as will be sufficient to satisfy the requirements of the Plan.

4. Administration of the Plan.

(a) Procedure.

(i) Multiple Administrative Bodies. Different Committees with respect to different groups of Service Providers may administer the Plan.

(ii) Other Administration. Other than as provided above, the Plan will be administered by (A) the Board or (B) a Committee, which Committee will be constituted to satisfy Applicable Laws.

(b) Powers of the Administrator. Subject to the provisions of the Plan, and in the case of a Committee, subject to the specific duties delegated by the Board to such Committee, the Administrator will have the authority, in its discretion:

(i) to determine the Fair Market Value;

(ii) to select the Service Providers to whom Awards may be granted hereunder;

(iii) to determine the number of Shares to be covered by each Award granted hereunder;

(iv) to approve forms of Award Agreements for use under the Plan;

(v) to determine the terms and conditions, not inconsistent with the terms of the Plan, of any Award granted hereunder. Such terms and conditions include, but are not limited to, the exercise price, the time or times when Awards may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions, and any restriction or limitation regarding any Award or the Shares relating thereto, based in each case on such factors as the Administrator will determine;

(vi) to institute and determine the terms and conditions of an Exchange Program;

(vii) to construe and interpret the terms of the Plan and Awards granted pursuant to the Plan;

(viii) to prescribe, amend and rescind rules and regulations relating to the Plan, including rules and regulations relating to sub-plans established for the purpose of satisfying applicable foreign laws or for qualifying for favorable tax treatment under applicable foreign laws;

(ix) to modify or amend each Award (subject to Section 18(c) of the Plan), including but not limited to the discretionary authority to extend the post-termination exercisability period of Awards and to extend the maximum term of an Option (subject to Section 6(d));

(x) to allow Participants to satisfy withholding tax obligations in a manner prescribed in Section 14;

(xi) to authorize any person to execute on behalf of the Company any instrument required to effect the grant of an Award previously granted by the Administrator;

(xii) to allow a Participant to defer the receipt of the payment of cash or the delivery of Shares that otherwise would be due to such Participant under an Award; and

(xiii) to make all other determinations deemed necessary or advisable for administering the Plan.

(c) Effect of Administrator's Decision. The Administrator's decisions, determinations and interpretations will be final and binding on all Participants and any other holders of Awards.

5. Eligibility. Nonstatutory Stock Options, Stock Appreciation Rights, Restricted Stock, and Restricted Stock Units may be granted to Service Providers. Incentive Stock Options may be granted only to Employees.

6. Stock Options.

(a) Grant of Options. Subject to the terms and provisions of the Plan, the Administrator, at any time and from time to time, may grant Options in such amounts as the Administrator, in its sole discretion, will determine.

(b) Option Agreement. Each Award of an Option will be evidenced by an Award Agreement that will specify the exercise price, the term of the Option, the number of Shares subject to the Option, the exercise restrictions, if any, applicable to the Option, and such other terms and conditions as the Administrator, in its sole discretion, will determine.

(c) Limitations. Each Option will be designated in the Award Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. Notwithstanding such designation, however, to the extent that the aggregate Fair Market Value of the Shares with respect to which Incentive Stock Options are exercisable for the first time by the Participant during any calendar year (under all plans of the Company and any Parent or Subsidiary) exceeds one hundred thousand dollars ($100,000), such Options will be treated as Nonstatutory Stock Options. For purposes of this Section 6(c), Incentive Stock Options will be taken into account in the order in which they were granted, the Fair Market Value of the Shares will be determined as of the time the Option with respect to such Shares is granted, and calculation will be performed in accordance with Code Section 422 and Treasury Regulations promulgated thereunder.

(d) Term of Option. The term of each Option will be stated in the Award Agreement; provided, however, that the term will be no more than ten (10) years from the date of grant thereof. In the case of an Incentive Stock Option granted to a Participant who, at the time the Incentive Stock Option is granted, owns stock representing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Incentive Stock Option will be five (5) years from the date of grant or such shorter term as may be provided in the Award Agreement.

(e) Option Exercise Price and Consideration.

(i) Exercise Price. The per Share exercise price for the Shares to be issued pursuant to the exercise of an Option will be determined by the Administrator, but will be no less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant. In addition, in the case of an Incentive Stock Option granted to an Employee who owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the per Share exercise price will be no less than one hundred ten percent (110%) of the Fair Market Value per Share on the date of grant. Notwithstanding the foregoing provisions of this Section 6(e)(i), Options may be granted with a per Share exercise price of less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant pursuant to a transaction described in, and in a manner consistent with, Code Section 424(a).

(ii) Waiting Period and Exercise Dates. At the time an Option is granted, the Administrator will fix the period within which the Option may be exercised and will determine any conditions that must be satisfied before the Option may be exercised.

(iii) Form of Consideration. The Administrator will determine the acceptable form of consideration for exercising an Option, including the method of payment. In the case of an Incentive Stock Option, the Administrator will determine the acceptable form of consideration at the time of grant. Such consideration may consist entirely of: (1) cash; (2) check; (3) promissory note, to the extent permitted by Applicable Laws, (4) other Shares, provided that such Shares have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which such Option will be exercised and provided further that accepting such Shares will not result in any adverse accounting consequences to the Company, as the Administrator determines in its sole discretion; (5) consideration received by the Company under cashless exercise program (whether through a broker or otherwise) implemented by the Company in connection with the Plan; (6) by net exercise, (7) such other consideration and method of payment for the issuance of Shares to the extent permitted by Applicable Laws, or (8) any combination of the foregoing methods of payment. In making its determination as to the type of consideration to accept, the Administrator will consider if acceptance of such consideration may be reasonably expected to benefit the Company.

(f) Exercise of Option.

(i) Procedure for Exercise; Rights as a Stockholder. Any Option granted hereunder will be exercisable according to the terms of the Plan and at such times and under such conditions as determined by the Administrator and set forth in the Award Agreement. An Option may not be exercised for a fraction of a Share.

An Option will be deemed exercised when the Company receives: (i) notice of exercise (in such form as the Administrator may specify from time to time) from the person entitled to exercise the Option, and (ii) full payment for the Shares with respect to which the Option is exercised (together with applicable tax withholding). Full payment may consist of any consideration and method of payment authorized by the Administrator and permitted by the Award Agreement and the Plan. Shares issued upon exercise of an Option will be issued in the name of the Participant or, if requested by the Participant, in the name of the Participant and his or her spouse. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to an Option, notwithstanding the exercise of the Option. The Company will issue (or cause to be issued) such Shares promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 13 of the Plan.

Exercising an Option in any manner will decrease the number of Shares thereafter available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

(ii) Termination of Relationship as a Service Provider. If a Participant ceases to be a Service Provider, other than upon the Participant's termination as the result of the Participant's death or Disability, the Participant may exercise his or her Option within thirty (30) days of termination, or such longer period of time as is specified in the Award Agreement (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement) to the extent that the Option is vested on the date of termination. Unless otherwise provided by the Administrator, if on the date of termination the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will revert to the Plan. If after termination the Participant does not exercise his or her Option within the time specified by the Administrator, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(iii) Disability of Participant. If a Participant ceases to be a Service Provider as a result of the Participant's Disability, the Participant may exercise his or her Option within six (6) months of termination, or such longer period of time as is specified in the Award Agreement (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement) to the extent the Option is vested on the date of termination. Unless otherwise provided by the Administrator, if on the date of termination the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will revert to the Plan. If after termination the Participant does not exercise his or her Option within the time specified herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(iv) Death of Participant. If a Participant dies while a Service Provider, the Option may be exercised within six (6) months following the Participant's death, or within such longer period of time as is specified in the Award Agreement (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement) to the extent that the Option is vested on the date of death, by the Participant's designated beneficiary, provided such beneficiary has been designated prior to the Participant's death in a form acceptable to the Administrator. If no such beneficiary has been designated by the Participant, then such Option may be exercised by the personal representative of the Participant's estate or by the person(s) to whom the Option is transferred pursuant to the Participant's will or in accordance with the laws of descent and distribution. Unless otherwise provided by the Administrator, if at the time of death Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will immediately revert to the Plan. If the Option is not so exercised within the time specified herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

7. Stock Appreciation Rights.

(a) Grant of Stock Appreciation Rights. Subject to the terms and conditions of the Plan, a Stock Appreciation Right may be granted to Service Providers at any time and from time to time as will be determined by the Administrator, in its sole discretion.

(b) Number of Shares. The Administrator will have complete discretion to determine the number of Shares subject to any Award of Stock Appreciation Rights.

(c) Exercise Price and Other Terms. The per Share exercise price for the Shares that will determine the amount of the payment to be received upon exercise of a Stock Appreciation Right as set forth in Section 7(f) will be determined by the Administrator and will be no less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant. Otherwise, the Administrator, subject to the provisions of the Plan, will have complete discretion to determine the terms and conditions of Stock Appreciation Rights granted under the Plan.

(d) Stock Appreciation Right Agreement. Each Stock Appreciation Right grant will be evidenced by an Award Agreement that will specify the exercise price, the term of the Stock Appreciation Right, the conditions of exercise, and such other terms and conditions as the Administrator, in its sole discretion, will determine.

(e) Expiration of Stock Appreciation Rights. A Stock Appreciation Right granted under the Plan will expire upon the date determined by the Administrator, in its sole discretion, and set forth in the Award Agreement. Notwithstanding the foregoing, the rules of Section 6(d) relating to the maximum term and Section 6(f) relating to exercise also will apply to Stock Appreciation Rights.

(f) Payment of Stock Appreciation Right Amount. Upon exercise of a Stock Appreciation Right, a Participant will be entitled to receive payment from the Company in an amount determined by multiplying:

(i) The difference between the Fair Market Value of a Share on the date of exercise over the exercise price; times

(ii) The number of Shares with respect to which the Stock Appreciation Right is exercised.

At the discretion of the Administrator, the payment upon Stock Appreciation Right exercise may be in cash, in Shares of equivalent value, or in some combination thereof.

8. Restricted Stock.

(a) Grant of Restricted Stock. Subject to the terms and provisions of the Plan, the Administrator, at any time and from time to time, may grant Shares of Restricted Stock to Service Providers in such amounts as the Administrator, in its sole discretion, will determine.

(b) Restricted Stock Agreement. Each Award of Restricted Stock will be evidenced by an Award Agreement that will specify the Period of Restriction, the number of Shares granted, and such other terms and conditions as the Administrator, in its sole discretion, will determine. Unless the Administrator determines otherwise, the Company as escrow agent will hold Shares of Restricted Stock until the restrictions on such Shares have lapsed.

(c) Transferability. Except as provided in this Section 8 or as the Administrator determines, Shares of Restricted Stock may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated until the end of the applicable Period of Restriction.

(d) Other Restrictions. The Administrator, in its sole discretion, may impose such other restrictions on Shares of Restricted Stock as it may deem advisable or appropriate.

(e) Removal of Restrictions. Except as otherwise provided in this Section 8, Shares of Restricted Stock covered by each Restricted Stock grant made under the Plan will be released from escrow as soon as practicable after the last day of the Period of Restriction or at such other time as the Administrator may determine. The Administrator, in its discretion, may accelerate the time at which any restrictions will lapse or be removed.

(f) Voting Rights. During the Period of Restriction, Service Providers holding Shares of Restricted Stock granted hereunder may exercise full voting rights with respect to those Shares, unless the Administrator determines otherwise.

(g) Dividends and Other Distributions. During the Period of Restriction, Service Providers holding Shares of Restricted Stock will be entitled to receive all dividends and other distributions paid with respect to such Shares, unless the Administrator provides otherwise. If any such dividends or distributions are paid in Shares, the Shares will be subject to the same restrictions on transferability and forfeitability as the Shares of Restricted Stock with respect to which they were paid.

(h) Return of Restricted Stock to Company. On the date set forth in the Award Agreement, the Restricted Stock for which restrictions have not lapsed will revert to the Company and again will become available for grant under the Plan.

9. Restricted Stock Units.

(a) Grant. Restricted Stock Units may be granted at any time and from time to time as determined by the Administrator. After the Administrator determines that it will grant Restricted Stock Units, it will advise the Participant in an Award Agreement of the terms, conditions, and restrictions related to the grant, including the number of Restricted Stock Units.

(b) Vesting Criteria and Other Terms. The Administrator will set vesting criteria in its discretion, which, depending on the extent to which the criteria are met, will determine the number of Restricted Stock Units that will be paid out to the Participant. The Administrator may set vesting criteria based upon the achievement of Company-wide, business unit, or individual goals (including, but not limited to, continued employment or service), or any other basis determined by the Administrator in its discretion.

(c) Earning Restricted Stock Units. Upon meeting the applicable vesting criteria, the Participant will be entitled to receive a payout as determined by the Administrator. Notwithstanding the foregoing, at any time after the grant of Restricted Stock Units, the Administrator, in its sole discretion, may reduce or waive any vesting criteria that must be met to receive a payout.

(d) Form and Timing of Payment. Payment of earned Restricted Stock Units will be made as soon as practicable after the date(s) determined by the Administrator and set forth in the Award Agreement. The Administrator, in its sole discretion, may settle earned Restricted Stock Units in cash, Shares, or a combination of both.

(e) Cancellation. On the date set forth in the Award Agreement, all unearned Restricted Stock Units will be forfeited to the Company.

10. Compliance With Code Section 409A. Awards will be designed and operated in such a manner that they are either exempt from the application of, or comply with, the requirements of Code Section 409A, except as otherwise determined in the sole discretion of the Administrator. The Plan and each Award Agreement under the Plan is intended to meet the requirements of Code Section 409A and will be construed and interpreted in accordance with such intent, except as otherwise determined in the sole discretion of the Administrator. To the extent that an Award or payment, or the settlement or deferral thereof, is subject to Code Section 409A the Award will be granted, paid, settled or deferred in a manner that will meet the requirements of Code Section 409A, such that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Code Section 409A.

11. Leaves of Absence/Transfer Between Locations. Unless the Administrator provides otherwise, vesting of Awards granted hereunder will be suspended during any unpaid leave of absence. A Participant will not cease to be an Employee in the case of (i) any leave of absence approved by the Company or (ii) transfers between locations of the Company or between the Company, its Parent, or any Subsidiary. For purposes of Incentive Stock Options, no such leave may exceed three (3) months, unless reemployment upon expiration of such leave is guaranteed by statute or contract. If reemployment upon expiration of a leave of absence approved by the Company is not so guaranteed, then six (6) months following the first (1^{st}) day of such leave, any Incentive Stock Option held by the Participant will cease to be treated as an Incentive Stock Option and will be treated for tax purposes as a Nonstatutory Stock Option.

12. Limited Transferability of Awards.

(a) Unless determined otherwise by the Administrator, Awards may not be sold, pledged, assigned, hypothecated, or otherwise transferred in any manner other than by will or by the laws of descent and distribution, and may be exercised, during the lifetime of the Participant, only by the Participant. If the Administrator makes an Award transferable, such Award may only be transferred (i) by will, (ii) by the laws of descent and distribution, or (iii) as permitted by Rule 701 of the Securities Act of 1933, as amended (the "Securities Act").

(b) Further, during the period the Company is relying upon the exemption from registration provided in Rule 12h-1(f)(1) promulgated under the Exchange Act (the "Rule 12h-1(f) Exemption") until the Company either (i) becomes subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act or (ii) is no longer relying upon the Rule 12h-1(f) Exemption, an Option, or prior to exercise, the Shares subject to the Option, may not be pledged, hypothecated or otherwise transferred or disposed of, in any manner, including by entering into any short position, any "put equivalent position" or any "call equivalent position" (as defined in Rule 16a-1(h) and Rule 16a-1(b) of the Exchange Act, respectively), other than to (x) persons who are "family members" (as defined in Rule 701(c)(3) of the Securities Act) through gifts or domestic relations orders, or (y) to an executor or guardian of the Participant upon the death or disability of the Participant, in each case, to the extent required for continued reliance on the Rule 12h-1(f) Exemption. Notwithstanding the foregoing sentence, the Administrator, in its sole discretion, may determine to permit transfers to the Company or in connection with a Change in Control or other acquisition transactions involving the Company to the extent permitted by Rule 12h-1(f) or, if the Company is not relying on the Rule 12h-1(f) Exemption, to the extent permitted by the Plan.

13. Adjustments; Dissolution or Liquidation; Merger or Change in Control.

(a) Adjustments. In the event that any dividend or other distribution (whether in the form of cash, Shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Shares or other securities of the Company, or other change in the corporate structure of the Company affecting the Shares occurs, the Administrator, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the Plan, will adjust the number and class of shares of stock that may be delivered under the Plan and/or the number, class, and price of shares of stock covered by each outstanding Award; provided, however, that the Administrator will make such adjustments to an Award required by Section 25102(o) of the California Corporations Code to the extent the Company is relying upon the exemption afforded thereby with respect to the Award.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Administrator will notify each Participant as soon as practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, an Award will terminate immediately prior to the consummation of such proposed action.

(c) Merger or Change in Control. In the event of a merger of the Company with or into another corporation or other entity or a Change in Control, each outstanding Award will be treated as the Administrator determines (subject to the provisions of the following paragraph) without a Participant's consent, including, without limitation, that (i) Awards will be assumed, or substantially equivalent Awards will be substituted, by the acquiring or succeeding corporation (or an affiliate thereof) with appropriate adjustments as to the number and kind of shares and prices; (ii) upon written notice to a Participant, that the Participant's Awards will terminate upon or immediately prior to the consummation of such merger or Change in Control; (iii) outstanding Awards will vest and become exercisable, realizable, or payable, or restrictions applicable to an Award will lapse, in whole or in part prior to or upon consummation of such merger or Change in Control, and, to the extent the Administrator determines, terminate upon or immediately prior to the effectiveness of such merger or Change in Control; (iv) (A) the termination of an Award in exchange for an amount of cash and/or property, if any, equal to the amount that would have been attained upon the exercise of such Award or realization of the Participant's rights as of the date of the occurrence of the transaction (and, for the avoidance of doubt, if as of the date of the occurrence of the transaction the Administrator determines in good faith that no amount would have been attained upon the exercise of such Award or realization of the Participant's rights, then such Award may be terminated by the Company without payment), or (B) the replacement of such Award with other rights or property selected by the Administrator in its sole discretion; or (v) any combination of the foregoing. In taking any of the actions permitted under this subsection 13(c), the Administrator will not be obligated to treat all Awards, all Awards held by a Participant, or all Awards of the same type, similarly.

In the event that the successor corporation does not assume or substitute for the Award (or portion thereof), the Participant will fully vest in and have the right to exercise all of his or her outstanding Options and Stock Appreciation Rights, including Shares as to which such Awards would not otherwise be vested or exercisable, all restrictions on Restricted Stock and Restricted Stock Units will lapse, and, with respect to Awards with performance-based vesting, all performance goals or other vesting criteria will be deemed achieved at one hundred percent (100%) of target levels and all other terms and conditions met. In addition, if an Option or Stock Appreciation Right is not assumed or substituted in the event of a merger or Change in Control, the Administrator will notify the Participant in writing or electronically that the Option or Stock Appreciation Right will be exercisable for a period of time determined by the Administrator in its sole discretion, and the Option or Stock Appreciation Right will terminate upon the expiration of such period.

For the purposes of this subsection 13(c), an Award will be considered assumed if, following the merger or Change in Control, the Award confers the right to purchase or receive, for each Share subject to the Award immediately prior to the merger or Change in Control, the consideration (whether stock, cash, or other securities or property) received in the merger or Change in Control by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the merger or Change in Control is not solely common stock of the successor corporation or its Parent, the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of an Option or Stock Appreciation Right or upon the payout of a Restricted Stock Unit, for each Share subject to such Award, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of Common Stock in the merger or Change in Control.

Notwithstanding anything in this Section 13(c) to the contrary, an Award that vests, is earned or paid-out upon the satisfaction of one or more performance goals will not be considered assumed if the Company or its successor modifies any of such performance goals without the Participant's consent; provided, however, a modification to such performance goals only to reflect the successor corporation's post-Change in Control corporate structure will not be deemed to invalidate an otherwise valid Award assumption.

Notwithstanding anything in this Section 13(c) to the contrary, if a payment under an Award Agreement is subject to Code Section 409A and if the change in control definition contained in the Award Agreement does not comply with the definition of "change of control" for purposes of a distribution under Code Section 409A, then any payment of an amount that is otherwise accelerated under this Section will be delayed until the earliest time that such payment would be permissible under Code Section 409A without triggering any penalties applicable under Code Section 409A.

14. Tax Withholding.

(a) Withholding Requirements. Prior to the delivery of any Shares or cash pursuant to an Award (or exercise thereof), the Company will have the power and the right to deduct or withhold, or require a Participant to remit to the Company, an amount sufficient to satisfy federal, state, local, foreign or other taxes (including the Participant's FICA obligation) required to be withheld with respect to such Award (or exercise thereof).

(b) Withholding Arrangements. The Administrator, in its sole discretion and pursuant to such procedures as it may specify from time to time, may permit a Participant to satisfy such tax withholding obligation, in whole or in part by (without limitation) (i) paying cash, (ii) electing to have the Company withhold otherwise deliverable Shares having a Fair Market Value equal to the minimum statutory amount required to be withheld, (iii) delivering to the Company already-owned Shares having a Fair Market Value equal to the statutory amount required to be withheld, provided the delivery of such Shares will not result in any adverse accounting consequences, as the Administrator determines in its sole discretion, or (iv) selling a sufficient number of Shares otherwise deliverable to the Participant through such means as the Administrator may determine in its sole discretion (whether through a broker or otherwise) equal to the amount required to be withheld. The amount of the withholding requirement will be deemed to include any amount which the Administrator agrees may be withheld at the time the election is made, not to exceed the amount determined by using the maximum federal, state or local marginal income tax rates applicable to the Participant with respect to the Award on the date that the amount of tax to be withheld is to be determined. The Fair Market Value of the Shares to be withheld or delivered will be determined as of the date that the taxes are required to be withheld.

15. No Effect on Employment or Service. Neither the Plan nor any Award will confer upon a Participant any right with respect to continuing the Participant's relationship as a Service Provider with the Company, nor will they interfere in any way with the Participant's right or the Company's right to terminate such relationship at any time, with or without cause, to the extent permitted by Applicable Laws.

16. Date of Grant. The date of grant of an Award will be, for all purposes, the date on which the Administrator makes the determination granting such Award, or such other later date as is determined by the Administrator. Notice of the determination will be provided to each Participant within a reasonable time after the date of such grant.

17. Term of Plan. Subject to Section 21 of the Plan, the Plan will become effective upon its adoption by the Board. Unless sooner terminated under Section 18, it will continue in effect for a term of ten (10) years from the later of (a) the effective date of the Plan, or (b) the earlier of the most recent Board or stockholder approval of an increase in the number of Shares reserved for issuance under the Plan.

18. Amendment and Termination of the Plan.

(a) Amendment and Termination. The Board may at any time amend, alter, suspend or terminate the Plan.

(b) Stockholder Approval. The Company will obtain stockholder approval of any Plan amendment to the extent necessary and desirable to comply with Applicable Laws.

(c) Effect of Amendment or Termination. No amendment, alteration, suspension or termination of the Plan will impair the rights of any Participant, unless mutually agreed otherwise between the Participant and the Administrator, which agreement must be in writing and signed by the Participant and the Company. Termination of the Plan will not affect the Administrator's ability to exercise the powers granted to it hereunder with respect to Awards granted under the Plan prior to the date of such termination.

19. Conditions Upon Issuance of Shares.

(a) Legal Compliance. Shares will not be issued pursuant to the exercise of an Award unless the exercise of such Award and the issuance and delivery of such Shares will comply with Applicable Laws and will be further subject to the approval of counsel for the Company with respect to such compliance.

(b) Investment Representations. As a condition to the exercise of an Award, the Company may require the person exercising such Award to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

20. Inability to Obtain Authority. The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, will relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority will not have been obtained.

21. Stockholder Approval. The Plan will be subject to approval by the stockholders of the Company within twelve (12) months after the date the Plan is adopted by the Board. Such stockholder approval will be obtained in the manner and to the degree required under Applicable Laws.

22. Information to Participants. If and as required (i) pursuant to Rule 701 of the Securities Act, if the Company is relying on the exemption from registration provided pursuant to Rule 701 of the Securities Act with respect to the applicable Award, and/or (ii) pursuant to Rule 12h-1(f) of the Exchange Act, to the extent the Company is relying on the Rule 12h-(1)(f) Exemption, then during the period of reliance on the applicable exemption and in each case of (i) and (ii) until such time as the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act,, the Company shall provide to each Participant the information described in paragraphs (e)(3), (4), and (5) of Rule 701 under the Securities Act not less frequently than every six (6) months with the financial statements being not more than 180 days old and with such information provided either by physical or electronic delivery to the Participants or by written notice to the Participants of the availability of the information on an Internet site that may be password-protected and of any password needed to access the information. The Company may request that Participants agree to keep the information to be provided pursuant to this section confidential. If a Participant does not agree to keep the information to be provided pursuant to this section confidential, then the Company will not be required to provide the information unless otherwise required pursuant to Rule 12h-1(f)(1) under the Exchange Act (if the Company is relying on the Rule 12h-1(f) Exemption) or Rule 701 of the Securities Act (if the Company is relying on the exemption pursuant to Rule 701 of the Securities Act).

AKOYA BIOSCIENCES, INC.

2015 EQUITY INCENTIVE PLAN

STOCK OPTION AGREEMENT

Unless otherwise defined herein, the terms defined in the 2015 Equity Incentive Plan (the "Plan") shall have the same defined meanings in this Stock Option Agreement (the "Option Agreement").

I. NOTICE OF STOCK OPTION GRANT

Name: _____

Address: _____

The undersigned Participant has been granted an Option to purchase Class B Common Stock (non-voting) of the Company, subject to the terms and conditions of the Plan and this Option Agreement, as follows:

Award Number:		_____
Date of Grant:		_____
Vesting Commencement Date:		_____
Exercise Price per Share:		_____
Total Number of Shares Granted:		_____
Total Exercise Price :		_____
Type of Option:	—	Incentive Stock Option
	—	Nonstatutory Stock Option
Term/Expiration Date:		_____ (subject to the termination provisions below)

Vesting Schedule:

This Option shall be exercisable, in whole or in part, according to the following vesting schedule:

Twenty-five percent (25%) of the Shares subject to the Option shall vest on the one (1) year anniversary of the Vesting Commencement Date, and one forty-eighth ($1/48^{th}$) of the Shares subject to the Option shall vest each month thereafter on the same day of the month as the Vesting Commencement Date (and if there is no corresponding day, on the last day of the month), subject to Participant continuing to be a Service Provider through each such date.

Termination Period:

This Option shall be exercisable for three (3) months after Participant ceases to be a Service Provider, unless such termination is due to Participant's death or Disability, in which case this Option shall be exercisable for twelve (12) months after Participant ceases to be a Service Provider. Notwithstanding the foregoing sentence, in no event may this Option be exercised after the Term/Expiration Date as provided above and this Option may be subject to earlier termination as provided in Section 13 of the Plan.

II. AGREEMENT

1. Grant of Option. The Administrator of the Company hereby grants to the Participant named in the Notice of Stock Option Grant in Part I of this Option Agreement ("Participant"), an option (the "Option") to purchase the number of Shares set forth in the Notice of Stock Option Grant, at the exercise price per Share set forth in the Notice of Stock Option Grant (the "Exercise Price"), and subject to the terms and conditions of the Plan, which is incorporated herein by reference. Subject to Section 18 of the Plan, in the event of a conflict between the terms and conditions of the Plan and this Option Agreement, the terms and conditions of the Plan shall prevail.

If designated in the Notice of Stock Option Grant as an Incentive Stock Option ("ISO"), this Option is intended to qualify as an Incentive Stock Option as defined in Section 422 of the Code. Nevertheless, to the extent that it exceeds the $100,000 rule of Code Section 422(d), this Option shall be treated as a Nonstatutory Stock Option ("NSO"). Further, if for any reason this Option (or portion thereof) shall not qualify as an ISO, then, to the extent of such nonqualification, such Option (or portion thereof) shall be regarded as a NSO granted under the Plan. In no event shall the Administrator, the Company or any Parent or Subsidiary or any of their respective employees or directors have any liability to Participant (or any other person) due to the failure of the Option to qualify for any reason as an ISO.

2. Exercise of Option.

(a) Right to Exercise. This Option shall be exercisable during its term in accordance with the Vesting Schedule set out in the Notice of Stock Option Grant and with the applicable provisions of the Plan and this Option Agreement, including, without limitation, agreeing to become a party to the Voting Agreement and Co-Sale Agreement, as applicable, as defined in the Exercise Notice.

(b) Method of Exercise. This Option shall be exercisable by delivery of an exercise notice in the form attached as Exhibit A (the "Exercise Notice") or in a manner and pursuant to such procedures as the Administrator may determine, which shall state the election to exercise the Option, the number of Shares with respect to which the Option is being exercised (the "Exercised Shares"), and such other representations and agreements as may be required by the Company. The Exercise Notice shall be accompanied by payment of the aggregate Exercise Price as to all Exercised Shares, together with any applicable tax withholding. This Option shall be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by the aggregate Exercise Price, together with any applicable tax withholding.

No Shares shall be issued pursuant to the exercise of an Option unless such issuance and such exercise comply with Applicable Laws. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to Participant on the date on which the Option is exercised with respect to such Shares.

3. Participant's Representations. In the event the Shares have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), at the time this Option is exercised, Participant shall, if required by the Company, concurrently with the exercise of all or any portion of this Option, deliver to the Company his or her Investment Representation Statement in the form attached hereto as Exhibit B.

4. Lock-Up Period. Participant hereby agrees that Participant shall not offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any Class B Common Stock (or other securities) of the Company or enter into any swap, hedging or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Class B Common Stock (or other securities) of the Company held by Participant (other than those included in the registration) for a period specified by the representative of the underwriters of Class B Common Stock (or other securities) of the Company not to exceed one hundred and eighty (180) days following the effective date of any registration statement of the Company filed under the Securities Act (or such other period as may be requested by the Company or the underwriters to accommodate regulatory restrictions on (i) the publication or other distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in NASD Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto).

Participant agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriter which are consistent with the foregoing or which are necessary to give further effect thereto. In addition, if requested by the Company or the representative of the underwriters of Class B Common Stock (or other securities) of the Company, Participant shall provide, within ten (10) days of such request, such information as may be required by the Company or such representative in connection with the completion of any public offering of the Company's securities pursuant to a registration statement filed under the Securities Act. The obligations described in this Section 4 shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a Commission Rule 145 transaction on Form S-4 or similar forms that may be promulgated in the future. The Company may impose stop-transfer instructions with respect to the shares of Class B Common Stock (or other securities) subject to the foregoing restriction until the end of said one hundred and eighty (180) day (or other) period. Participant agrees that any transferee of the Option or shares acquired pursuant to the Option shall be bound by this Section 4.

5. Method of Payment. Payment of the aggregate Exercise Price shall be by any of the following, or a combination thereof, at the election of the Participant:

(a) cash;

(b) check;

(c) consideration received by the Company under a formal cashless exercise program adopted by the Company in connection with the Plan; or

(d) surrender of other Shares which (i) shall be valued at its Fair Market Value on the date of exercise, and (ii) must be owned free and clear of any liens, claims, encumbrances or security interests, if accepting such Shares, in the sole discretion of the Administrator, shall not result in any adverse accounting consequences to the Company.

6. Restrictions on Exercise. This Option may not be exercised until such time as the Plan has been approved by the stockholders of the Company, or if the issuance of such Shares upon such exercise or the method of payment of consideration for such shares would constitute a violation of any Applicable Law.

7. Non-Transferability of Option.

(a) This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of Participant only by Participant. The terms of the Plan and this Option Agreement shall be binding upon the executors, administrators, heirs, successors and assigns of Participant.

(b) Further, until the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, or after the Administrator determines that it is, will, or may no longer be relying upon the exemption from registration of Options under the Exchange Act as set forth in Rule 12h-1(f) promulgated under the Exchange Act (the "Reliance End Date"), Participant shall not transfer this Option or, prior to exercise, the Shares subject to this Option, in any manner other than (i) to persons who are "family members" (as defined in Rule 701(c)(3) of the Securities Act) through gifts or domestic relations orders, or (ii) to an executor or guardian of Participant upon the death or disability of Participant. Until the Reliance End Date, the Options and, prior to exercise, the Shares subject to this Option, may not be pledged, hypothecated or otherwise transferred or disposed of, including by entering into any short position, any "put equivalent position" or any "call equivalent position" (as defined in Rule 16a-1(h) and Rule 16a-1(b) of the Exchange Act, respectively), other than as permitted in clauses (i) and (ii) of this paragraph.

8. Term of Option. This Option may be exercised only within the term set out in the Notice of Stock Option Grant, and may be exercised during such term only in accordance with the Plan and the terms of this Option Agreement.

9. Tax Obligations.

(a) Tax Withholding. Participant agrees to make appropriate arrangements with the Company (or the Parent or Subsidiary employing or retaining Participant) for the satisfaction of all Federal, state, local and foreign income and employment tax withholding requirements applicable to the Option exercise. Participant acknowledges and agrees that the Company may refuse to honor the exercise and refuse to deliver the Shares if such withholding amounts are not delivered at the time of exercise.

(b) Notice of Disqualifying Disposition of ISO Shares. If the Option granted to Participant herein is an ISO, and if Participant sells or otherwise disposes of any of the Shares acquired pursuant to the ISO on or before the later of (i) the date two (2) years after the Date of Grant, or (ii) the date one (1) year after the date of exercise, Participant shall immediately notify the Company in writing of such disposition. Participant agrees that Participant may be subject to income tax withholding by the Company on the compensation income recognized by Participant.

(c) Code Section 409A. Under Code Section 409A, an Option that vests after December 31, 2004 (or that vested on or prior to such date but which was materially modified after October 3, 2004) that was granted with a per Share exercise price that is determined by the Internal Revenue Service (the "IRS") to be less than the Fair Market Value of a Share on the date of grant (a "discount option") may be considered "deferred compensation." An Option that is a "discount option" may result in (i) income recognition by Participant prior to the exercise of the Option, (ii) an additional twenty percent (20%) federal income tax, and (iii) potential penalty and interest charges. The "discount option" may also result in additional state income, penalty and interest tax to the Participant. Participant acknowledges that the Company cannot and has not guaranteed that the IRS will agree that the per Share exercise price of this Option equals or exceeds the Fair Market Value of a Share on the date of grant in a later examination. Participant agrees that if the IRS determines that the Option was granted with a per Share exercise price that was less than the Fair Market Value of a Share on the date of grant, Participant shall be solely responsible for Participant's costs related to such a determination.

(d) No Election to Defer Taxation on Exercise. No election under Section 83(i) of the Code will be available upon exercise of this Option. The Company has declined to establish the escrow arrangement under Section III.B.2 of IRS Notice 2018-97 (or other applicable regulations) under Section 83(i) of the Code or otherwise create the conditions that would allow for elections under Section 83(i) of the Code.

10. Entire Agreement; Governing Law. The Plan is incorporated herein by reference. The Plan, this Option Agreement and any additional agreements referenced in the Exercise Notice, constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements (including offer letters) of the Company and Participant with respect to the subject matter hereof, and may not be modified adversely to the Participant's interest except by means of a writing signed by the Company and Participant. This Option Agreement is governed by the internal substantive laws but not the choice of law rules of California.

11. No Guarantee of Continued Service. PARTICIPANT ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) AND NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER. PARTICIPANT FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE IN ANY WAY WITH PARTICIPANT'S RIGHT OR THE RIGHT OF THE COMPANY (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) TO TERMINATE PARTICIPANT'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

12. Non-US Persons. If Participant is not a "U.S. person" (as defined by Section 7701(a)(30) of the Internal Revenue Code of 1986, as amended), Participant hereby represents that Participant has satisfied herself/himself/itself as to the full observance of the laws of Participant's jurisdiction and country in connection with the receipt of this Option Agreement, including (i) the legal requirements within Participant's jurisdiction for the exercise of this Option Agreement, (ii) any foreign exchange restrictions applicable to such purchase, (iii) any governmental or other consents that may need to be obtained, and (iv) the income tax and other tax consequences, if any, that may be relevant to the exercise, purchase, holding, redemption, sale, or transfer of the securities underlying this Option Agreement.

Participant acknowledges receipt of a copy of the Plan and represents that he or she is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and provisions thereof. Participant has reviewed the Plan and this Option in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this Option. Participant further agrees to notify the Company upon any change in the residence address indicated below.

PARTICIPANT

[participant name]

AKOYA BIOSCIENCES, INC.

Signature

Print Name

Title

EXHIBIT A

2015 EQUITY INCENTIVE PLAN

EXERCISE NOTICE

Akoya Biosciences, Inc.
1505 O'Brien Drive, Suite A-1
Menlo Park, CA 94025

Attention: President

1. Exercise of Option. Effective as of today, _____, ____, the undersigned ("Participant") hereby elects to exercise Participant's option (the "Option") to purchase _____ shares of the Class B Common Stock (the "Shares") of Akoya Biosciences, Inc. (the "Company") under and pursuant to the 2015 Equity Incentive Plan (the "Plan") and the Stock Option Agreement for Award Number 109 dated May 2, 2019 (the "Option Agreement").

2. Delivery of Payment. Participant herewith delivers to the Company the full purchase price of the Shares, as set forth in the Option Agreement, and any and all withholding taxes due in connection with the exercise of the Option.

3. Representations of Participant. Participant acknowledges that Participant has received, read and understood the Plan and the Option Agreement and agrees to abide by and be bound by their terms and conditions.

4. Rights as Stockholder. Until the issuance of the Shares (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the Class B Common Stock subject to an Award, notwithstanding the exercise of the Option. The Shares shall be issued to Participant as soon as practicable after the Option is exercised in accordance with the Option Agreement. No adjustment shall be made for a dividend or other right for which the record date is prior to the date of issuance except as provided in Section 13 of the Plan.

5. Company's Right of First Refusal. Before any Shares held by Participant or any transferee (either being sometimes referred to herein as the "Holder") may be sold or otherwise transferred (including transfer by gift or operation of law), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section 5 (the "Right of First Refusal").

(a) Notice of Proposed Transfer. The Holder of the Shares shall deliver to the Company a written notice (the "Notice") stating: (i) the Holder's bona fide intention to sell or otherwise transfer such Shares; (ii) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (iii) the number of Shares to be transferred to each Proposed Transferee; and (iv) the bona fide cash price or other consideration for which the Holder proposes to transfer the Shares (the "Offered Price"), and the Holder shall offer the Shares at the Offered Price to the Company or its assignee(s).

(b) Exercise of Right of First Refusal. At any time within thirty (30) days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (c) below.

(c) Purchase Price. The purchase price ("Purchase Price") for the Shares purchased by the Company or its assignee(s) under this Section 5 shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.

(d) Payment. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within thirty (30) days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(e) Holder's Right to Transfer. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section 5, then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, *provided* that such sale or other transfer is consummated within one hundred and twenty (120) days after the date of the Notice, that any such sale or other transfer is effected in accordance with any applicable securities laws and that the Proposed Transferee agrees in writing that the provisions of this Section 5 shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

(f) Exception for Certain Family Transfers. Anything to the contrary contained in this Section 5 notwithstanding, the transfer of any or all of the Shares during the Participant's lifetime or on the Participant's death by will or intestacy to the Participant's immediate family or a trust for the benefit of the Participant's immediate family shall be exempt from the provisions of this Section 5. "Immediate Family" as used herein shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister. In such case, the transferee or other recipient shall receive and hold the Shares so transferred subject to the provisions of this Section 5, and there shall be no further transfer of such Shares except in accordance with the terms of this Section 5.

(g) Termination of Right of First Refusal. The Right of First Refusal shall terminate as to any Shares upon the earlier of (i) the first sale of Common Stock of the Company to the general public, or (ii) a Change in Control in which the successor corporation has equity securities that are publicly traded.

6. Tax Consultation. Participant understands that Participant may suffer adverse tax consequences as a result of Participant's purchase or disposition of the Shares. Participant represents that Participant has consulted with any tax consultants Participant deems advisable in connection with the purchase or disposition of the Shares and that Participant is not relying on the Company for any tax advice.

7. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. Participant understands and agrees that the Company shall cause the legends set forth below or legends substantially equivalent thereto, to be placed upon any certificate(s) evidencing ownership of the Shares together with any other legends that may be required by the Company or by state or federal securities laws:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COUNSEL SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND A RIGHT OF FIRST REFUSAL HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE EXERCISE NOTICE BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS AND RIGHT OF FIRST REFUSAL ARE BINDING ON TRANSFEREES OF THESE SHARES.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO RESTRICTIONS ON TRANSFER FOR A PERIOD OF TIME FOLLOWING THE EFFECTIVE DATE OF THE UNDERWRITTEN PUBLIC OFFERING OF THE COMPANY'S SECURITIES SET FORTH IN AN AGREEMENT BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES AND MAY NOT BE SOLD OR OTHERWISE DISPOSED OF BY THE HOLDER PRIOR TO THE EXPIRATION OF SUCH PERIOD WITHOUT THE CONSENT OF THE COMPANY OR THE MANAGING UNDERWRITER.

(b) Stop-Transfer Notices. Participant agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Exercise Notice or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

8. Successors and Assigns. The Company may assign any of its rights under this Exercise Notice to single or multiple assignees, and this Exercise Notice shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Exercise Notice shall be binding upon Participant and his or her heirs, executors, administrators, successors and assigns.

9. Interpretation. Any dispute regarding the interpretation of this Exercise Notice shall be submitted by Participant or by the Company forthwith to the Administrator, which shall review such dispute at its next regular meeting. The resolution of such a dispute by the Administrator shall be final and binding on all parties.

10. Governing Law; Severability. This Exercise Notice is governed by the internal substantive laws, but not the choice of law rules, of California. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Exercise Notice shall continue in full force and effect.

11. Accession and Joinder to Voting Agreement. By signing this Exercise Notice, I hereby acknowledge and agree that I shall be deemed a "Key Holder" as such term is defined in the Second Amended and Restated Voting Agreement dated September 26, 2018 by and among the stockholders of the Company and the Company, in the form provided to me by the Company (the "Voting Agreement") and I shall have all the rights and privileges, and be subject to all of the obligations and restrictions pursuant to such Voting Agreement. I further acknowledge that I have received a copy of the Voting Agreement from the Company and I covenant and agree to execute and deliver to the Company any and all documents to effectuate this provision including, without limitation, (a) the Adoption Agreement attached hereto as Exhibit A-1 (and obtain a signed Consent of Spouse, if necessary) and (b) any restated or amended subsequent versions of such Voting Agreement.

12. Accession and Joinder to Right of First Refusal and Co-Sale Agreement. In the event that I am or I become a holder of at least one percent (1%) or more of the Company's then outstanding Common Stock (treating for this purpose all shares of Common Stock issuable upon exercise of or conversion of outstanding options, warrants or convertible securities, as if exercised or converted) ("1% Threshold"), I hereby acknowledge and agree that by signing this Exercise Notice, I shall be deemed a "Holder" as such term is defined in the Second Amended and Restated Right of First Refusal and Co-Sale Agreement dated September 26, 2018 by and among the stockholders of the Company and the Company, in the form provided to me by the Company (the "Co-Sale Agreement"). Contingent upon me holding capital stock to satisfy the 1% Threshold, I hereby acknowledge that I shall have all the rights and privileges, and be subject to all of the obligations and restrictions pursuant to such Co-Sale Agreement. I further acknowledge that I have received a copy of the Co-Sale Agreement from the Company and I covenant and agree to execute and deliver to the Company any and all documents to effectuate this provision including, without limitation, (a) the Adoption Agreement attached hereto as Exhibit A-1 (and obtain a signed Consent of Spouse, if necessary) and (b) any restated or amended subsequent versions of such Co-Sale Agreement.

13. Entire Agreement. The Plan and Option Agreement are incorporated herein by reference. This Exercise Notice, the Plan, the Option Agreement and the Investment Representation Statement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements (including offer letters) of the Company and Participant with respect to the subject matter hereof, and may not be modified adversely to the Participant's interest except by means of a writing signed by the Company and Participant.

Submitted by: **PARTICIPANT**	Accepted by: **AKOYA BIOSCIENCES, INC.**
Signature	By
Print Name	Print Name
	Title
Address:	Address:
	Date Received

EXHIBIT A-1

ADOPTION AGREEMENT

This Adoption Agreement ("Adoption Agreement") is executed on _____, 20____, by the undersigned (the "Holder") in conjunction with the exercise of an option (the "Option") to purchase Common Stock (the "Stock") of Akoya Biosciences, Inc., a Delaware corporation (the "Company'). Pursuant to the terms of the Option, Holder has agreed to become a party to (i) that certain Second Amended and Restated Voting Agreement dated as of September 26, 2018 (the "Voting Agreement") and if applicable, (ii) that certain Second Amended and Restated Right of First Refusal and Co-Sale Agreement dated as of September 26, 2018 (the "Co-Sale Agreement") (the Voting Agreement and Co-Sale Agreement shall be collectively referred to as the "Agreements") by and among the Company and certain of its stockholders, as such Agreements may be amended or amended and restated hereafter. By the execution of this Adoption Agreement, the Holder agrees as follows.

1. Acknowledgment. In connection with Holder's exercise of the Option, Holder is hereby agreeing to be bound by all terms and conditions of the Agreements by adopting and becoming a party to the Agreements for one or both of the following reasons, as applicable:

- In accordance with Subsection 7.1(b) of the Voting Agreement, as a "Key Holder" (as such term is defined in the Voting Agreement) for all purposes of the Voting Agreement.

- In accordance with Subsection 5.17 of the Co-Sale Agreement, contingent upon Holder meeting the 1% Threshold (as defined in Exhibit A to the Option), in which case Holder will be a "Holder" (as such term is defined in the Co-Sale Agreement) for all purposes of the Co-Sale Agreement.

2. Agreement. Holder hereby (a) agrees that the Stock and any other shares of capital stock or securities of the Company required by the Agreements to be bound thereby, shall be bound by and subject to the terms of the Agreements; and (b) adopts the Agreements with the same force and effect as if Holder were originally a party thereto.

3. Notice. Any notice required or permitted by the Agreements shall be given to Holder at the address or facsimile number listed below Holder's signature hereto.

HOLDER:

_____
Printed Name of Holder

_____
Signature of Holder
Address of Holder: _____
Facsimile Number: _____

CONSENT OF SPOUSE

I, _____, spouse of _____, acknowledge that I have read the (i) Second Amended and Restated Voting Agreement, dated as of September 26, 2018, (the "Voting Agreement") and (ii) Second Amended and Restated Right of First Refusal and Co-Sale Agreement, dated as of September 26, 2018, (the "Co-Sale Agreement") (the Voting Agreement and Co-Sale Agreement shall be collectively referred to as the "Agreements") by and among Akoya Biosciences, Inc. (the "Company') and certain of its stockholders. I know the contents of the Agreements. I am also aware that the Agreements contain provisions regarding the voting and transfer of shares of capital stock of the Company that my spouse may own, including any interest I might have therein, whether the interest is community property or otherwise.

I hereby agree that my interest, if any, in any shares of capital stock of the Company subject to the Agreements shall be irrevocably bound by the Agreements and further understand and agree that any community property interest I may have in such shares of capital stock of the Company shall be similarly bound by the Agreements. I further agree that amendment of the Agreements shall not require my consent.

My spouse shall have full power of management of the Shares, including any portion of those interests that are our community property; and my spouse has the full right, without my further approval, to exercise my spouse's voting rights as a stockholder in the Company, and to sell, transfer, encumber, and deal in any manner with the Shares.

I am aware that the legal, financial and related matters contained in the Agreements are complex and that I am free to seek independent professional guidance or counsel with respect to this Consent. I have either sought such guidance or counsel or determined after reviewing the Agreements carefully that I will waive such right.

Dated: _____

Signature of Spouse

_____

Name of Spouse

EXHIBIT B

INVESTMENT REPRESENTATION STATEMENT

PARTICIPANT :

COMPANY : AKOYA BIOSCIENCES, INC.

SECURITY : CLASS B COMMON STOCK

AMOUNT :

DATE :

In connection with the purchase of the above-listed Securities, the undersigned Participant represents to the Company the following:

(a) Participant is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities. Participant is acquiring these Securities for investment for Participant's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act of 1933, as amended (the "Securities Act").

(b) Participant acknowledges and understands that the Securities constitute "restricted securities" under the Securities Act and have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Participant's investment intent as expressed herein. In this connection, Participant understands that, in the view of the Securities and Exchange Commission, the statutory basis for such exemption may be unavailable if Participant's representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one (1) year or any other fixed period in the future. Participant further understands that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. Participant further acknowledges and understands that the Company is under no obligation to register the Securities. Participant understands that the certificate evidencing the Securities shall be imprinted with any legend required under applicable state securities laws.

(c) Participant is familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly from the issuer thereof, in a non-public offering subject to the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of the grant of the Option to Participant, the exercise shall be exempt from registration under the Securities Act. In the event the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, ninety (90) days thereafter (or such longer period as any market stand-off agreement may require) the Securities exempt under Rule 701 may be resold, subject to the satisfaction of the applicable conditions specified by Rule 144, including in the case of affiliates (1) the availability of certain public information about the Company, (2) the amount of Securities being sold during any three (3) month period not exceeding specified limitations, (3) the resale being made in an unsolicited "broker's transaction", transactions directly with a "market maker" or "riskless principal transactions" (as those terms are defined under the Securities Exchange Act of 1934) and (4) the timely filing of a Form 144, if applicable.

In the event that the Company does not qualify under Rule 701 at the time of grant of the Option, then the Securities may be resold in certain limited circumstances subject to the provisions of Rule 144, which may require (i) the availability of current public information about the Company; (ii) the resale to occur more than a specified period after the purchase and full payment (within the meaning of Rule 144) for the Securities; and (iii) in the case of the sale of Securities by an affiliate, the satisfaction of the conditions set forth in sections (2), (3) and (4) of the paragraph immediately above.

(d) Participant further understands that in the event all of the applicable requirements of Rule 701 or 144 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption shall be required; and that, notwithstanding the fact that Rules 144 and 701 are not exclusive, the Staff of the Securities and Exchange Commission has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rules 144 or 701 shall have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk. Participant understands that no assurances can be given that any such other registration exemption shall be available in such event.

(e) If Participant is not a "U.S. person" (as defined by Section 7701(a)(30) of the Internal Revenue Code of 1986, as amended), Participant hereby represents that Participant has satisfied herself/himself/itself as to the full observance of the laws of its jurisdiction and country in connection with any invitation to subscribe for the Securities, including (i) the legal requirements within its jurisdiction for the purchase of the Securities, (ii) any foreign exchange restrictions applicable to such purchase, (iii) any governmental or other consents that may need to be obtained, and (iv) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale, or transfer of the Securities. Participant's exercise, subscription and payment for and continued beneficial ownership of the Securities, will not violate any applicable securities or other laws of Participant's jurisdiction and country.

PARTICIPANT

Signature

Print Name

Date

Exhibit 10.4

AKOYA BIOSCIENCES, INC.

INDEMNIFICATION AGREEMENT

This Indemnification Agreement, dated _____ __, 2021, is made between Akoya BioSciences, Inc., a Delaware corporation (the "***Company***"), and [_____] (the "***Indemnitee***").

RECITALS

WHEREAS, the Company desires to attract and retain the services of talented and experienced individuals, such as Indemnitee, to serve as directors and officers of the Company and its subsidiaries and wishes to indemnify its directors and officers to the maximum extent permitted by law;

WHEREAS, the Company and Indemnitee recognize that corporate litigation in general has subjected directors and officers to expensive litigation risks;

WHEREAS, Section 145 ("***Section 145***") of the General Corporation Law of the State of Delaware, as amended ("***DGCL***"), under which the Company is organized, empowers the Company to indemnify its directors and officers by agreement and to indemnify persons who serve, at the request of the Company, as the directors and officers of other corporations or enterprises, and expressly provides that the indemnification provided by Section 145 is not exclusive;

WHEREAS, Section 145(g) of the DGCL allows for the purchase of director and officer ("***D&O***") liability insurance by the Company, which in theory can cover asserted liabilities without regard to whether they are indemnifiable by the Company or not;

WHEREAS, individuals considering service or presently serving expect to be extended market terms of indemnification commensurate with their position, and that entities such as Company will endeavor to maintain appropriate D&O insurance; and

WHEREAS, in order to induce Indemnitee to serve or continue to serve as a director or officer of the Company and/or one or more subsidiaries of the Company, or otherwise serve the Company in an indemnifiable capacity as set forth below, the Company and Indemnitee enter into this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants made herein and other good and valuable consideration, the receipt and sufficiency of which are mutually acknowledged, Indemnitee and the Company agree as follows:

1. **Definitions**. As used in this Agreement:

(a) "***Agent***" means any person who is or was a director, officer, employee or other agent of the Company or a subsidiary of the Company; or is or was serving at the request of, for the convenience of, or to represent the interests of the Company or a subsidiary of the Company as a director, officer, employee, fiduciary, or agent of another foreign or domestic corporation, limited liability company, employee benefit plan, nonprofit entity, partnership, joint venture, trust or other enterprise; or was a director, officer, employee, fiduciary, or agent of a foreign or domestic corporation which was a predecessor corporation of the Company or a subsidiary of the Company, or was a director, officer, employee, fiduciary, or agent of another enterprise at the request of, for the convenience of, or to represent the interests of such predecessor corporation.

(b) "***Board***" means the Board of Directors of the Company.

(c) "***Change in Control***" shall be deemed to have occurred if (i) any "person," as such term is used in Sections 13(d) and 14(d) of the Exchange Act, other than a trustee or other fiduciary holding securities under an employee benefit plan of the Company or a corporation owned directly or indirectly by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company, is or becomes the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing a majority of the total voting power represented by the Company's then outstanding voting securities, (ii) during any period of two (2) consecutive years, individuals who at the beginning of such period constituted the Board, together with any new directors whose election by the Board or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors at the beginning of the period or whose election or nomination was previously so approved, cease for any reason to constitute a majority of the Board, (iii) the stockholders of the Company approve a merger or consolidation or a sale of all or substantially all of the Company's assets with or to another entity, other than a merger, consolidation or asset sale that would result in the holders of the Company's outstanding voting securities immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) at least a majority of the total voting power represented by the voting securities of the Company or such surviving or successor entity outstanding immediately thereafter, or (iv) the stockholders of the Company approve a plan of complete liquidation of the Company.

(d) "***ERISA***" means Employee Retirement Income Security Act of 1974, as amended.

(e) "***Exchange Act***" means Securities Exchange Act of 1934, as amended.

(f) "***Expenses***" shall include all out-of-pocket costs of any type or nature whatsoever (including, without limitation, all attorneys' fees and related costs and disbursements), actually and reasonably incurred by Indemnitee in connection with either the investigation, defense, or appeal of a Proceeding, or establishing or enforcing a right to indemnification under this Agreement, or Section 145 or otherwise; *provided*, *however*, that "***Expenses***" shall not include any judgments, fines, ERISA excise taxes or penalties, or amounts paid in settlement of a Proceeding.

(g) "***Final Adjudication***" and ***"finally adjudged"*** means a final judgment or other binding determination from which there is no further procedural recourse, including without limitation following exhaustion or expiration of all available appeals.

(h) "***Independent Counsel***" means a law firm, or a partner (or, if applicable, member) of such a law firm, that is experienced in relevant matters of corporation law and neither currently is, nor in the past five years has been, retained to represent: (i) the Company or Indemnitee in any matter material to either such party or (ii) any other party to or witness in the proceeding giving rise to a claim for indemnification hereunder; *provided however,* that "Independent Counsel" shall not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Company or Indemnitee in an action to determine Indemnitee's rights under this Agreement. Where required by this Agreement, Independent Counsel shall be retained at the Company's sole expense.

(i) "***Proceeding***" means any threatened, pending, or completed action, claim, demand, discovery request, subpoena, hearing, suit, arbitration, alternate dispute resolution mechanism, investigation, administrative hearing, or any other proceeding whether formal or informal, civil, criminal, administrative, or investigative, including any such investigation or proceeding instituted by or on behalf of the Company or its Board of Directors, including any appeal of the foregoing, in which Indemnitee is or reasonably may be involved as a party or target, that is associated with Indemnitee's being an Agent of the Company.

(j) "***Securities Act***" means the Securities Act of 1933, as amended.

(k) "***Subsidiary***" means any corporation of which more than 50% of the outstanding voting securities is owned directly or indirectly by the Company, by the Company and/or one or more other subsidiaries.

2. Agreement to Serve. Indemnitee agrees to serve and/or continue to serve as an Agent of the Company, at its will (or under separate agreement, if such agreement exists), in the capacity Indemnitee currently serves as an Agent of the Company, so long as Indemnitee is duly appointed or elected and qualified in accordance with the applicable provisions of the Bylaws of the Company ("***Bylaws***") or any subsidiary of the Company or until such time as Indemnitee tenders his or her resignation in writing; *provided*, *however*, that nothing contained in this Agreement is intended to create any right to continued employment or other service by Indemnitee.

3. Liability Insurance.

(a) Maintenance of D&O Insurance. The Company covenants and agrees that, so long as Indemnitee shall continue to serve as an Agent of the Company and thereafter so long as Indemnitee shall be subject to any possible Proceeding by reason of the fact that Indemnitee was an Agent of the Company, the Company, subject to Section 3(c), shall promptly obtain and maintain in full force and effect directors' and officers' liability insurance ("***D&O Insurance***") in reasonable amounts from established and reputable insurers of a minimum A.M. Best rating of A-VII, and as more fully described below. In the event of a Change in Control, the Company shall, as set forth in Section 3(c), either: (i) maintain such D&O Insurance for six (6) years; or (ii) purchase a six (6) year tail for such D&O Insurance.

(b) Rights and Benefits. In all policies of D&O Insurance, Indemnitee shall qualify as an insured in such a manner as to provide Indemnitee the same rights and benefits as are accorded to the most favorably insured of the Company's Agents of the same standing as Indemnitee.

(c) Limitation on Required Maintenance of D&O Insurance. Notwithstanding the foregoing, the Company shall have no obligation to obtain or maintain D&O Insurance at all, or of any type, terms, or amount, if the Company determines in good faith and after using commercially reasonable efforts that: such insurance is not reasonably available; the premium costs for such insurance are disproportionate to the amount of coverage provided; the coverage provided by such insurance is limited so as to provide an insufficient or unreasonable benefit; Indemnitee is covered by similar insurance maintained by a subsidiary of the Company; or the Company is to be acquired and a tail policy of reasonable terms and duration can be purchased for pre-closing acts or omissions by Indemnitee.

4. Mandatory Indemnification. Subject to the terms of this Agreement:

(a) Third Party Actions. If Indemnitee is a person who was or is a party or is threatened to be made a party to any Proceeding (other than an action by or in the right of the Company) by reason of the fact that Indemnitee is or was an Agent of the Company, or by reason of anything done or not done by Indemnitee in any such capacity, the Company shall indemnify Indemnitee against all Expenses and liabilities of any type whatsoever (including, but not limited to, judgments, fines, ERISA excise taxes and penalties, and amounts paid in settlement) actually and reasonably incurred by Indemnitee in connection with the investigation, defense, settlement or appeal of such Proceeding; *provided* that Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or Proceeding, had no reasonable cause to believe his or her conduct was unlawful.

(b) Derivative Actions. If Indemnitee is a person who was or is a party or is threatened to be made a party to any Proceeding by or in the right of the Company by reason of the fact that Indemnitee is or was an Agent of the Company, or by reason of anything done or not done by Indemnitee in any such capacity, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by Indemnitee in connection with the investigation, defense, settlement or appeal of such Proceeding; *provided* that Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company; except that no indemnification under this Section 4(b) shall be made in respect to any claim, issue or matter as to which Indemnitee shall have been finally adjudged to be liable to the Company by a court of competent jurisdiction that the Indemnitee is liable to the Company, unless and only to the extent that the Delaware Court of Chancery or the court in which such Proceeding was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnity for such amounts which the Delaware Court of Chancery or such other court shall deem proper.

(c) Actions where Indemnitee is Deceased. If Indemnitee is a person who was or is a party or is threatened to be made a party to any Proceeding by reason of the fact that Indemnitee is or was an Agent of the Company, or by reason of anything done or not done by Indemnitee in any such capacity, and if, prior to, during the pendency of or after completion of such Proceeding Indemnitee is deceased, the Company shall indemnify Indemnitee's heirs, executors and administrators against all Expenses and liabilities of any type whatsoever to the extent Indemnitee would have been entitled to indemnification pursuant to this Agreement were Indemnitee still alive.

(d) Certain Terminations. The termination of any Proceeding or of any claim, issue, or matter therein by judgment, order, settlement, or conviction, or upon a plea of *nolo contendere* or its equivalent, shall not (except as otherwise expressly provided in this Agreement) of itself create a presumption that Indemnitee did not act in good faith and in a manner which Indemnitee reasonably believed to be in or not opposed to the best interests of the Company or, with respect to any criminal action or Proceeding, that Indemnitee had reasonable cause to believe that Indemnitee's conduct was unlawful.

(e) Limitations. Notwithstanding the foregoing provisions of Sections 4(a), 4(b), 4(c) and 4(d), but subject to the exception set forth in Section 13 which shall control, the Company shall not be obligated to indemnify the Indemnitee for Expenses or liabilities of any type whatsoever for which payment (and the Company's indemnification obligations under this Agreement shall be reduced by such payment) is actually made to or on behalf of Indemnitee, by the Company or otherwise, under a corporate insurance policy, or under a valid and enforceable indemnity clause, right, by-law, or agreement; and, in the event the Company has previously made a payment to Indemnitee for an Expense or liability of any type whatsoever for which payment is actually made to or on behalf of the Indemnitee from any such source, Indemnitee shall return to the Company the amounts subsequently received by the Indemnitee that source.

(f) Witness. In the event that Indemnitee is not a party or threatened to be made a party to a Proceeding, but is subpoenaed (or given a written request to be interviewed by or provide documents or information to a government authority of any jurisdiction) in such a Proceeding by reason of the fact that the Indemnitee is or was an Agent of the Company, or by reason of anything witnessed or allegedly witnessed by the Indemnitee in that capacity, the Company shall indemnify the Indemnitee against all actually and reasonably incurred out of pocket costs (including without limitation legal fees) incurred by the Indemnitee in responding to such subpoena or written request for an interview. As a condition to this right, Indemnitee must provide notice of such subpoena or request to the Company within 14 days, otherwise the Company's obligation to pay such costs shall only attach for costs incurred from the date of notice.

5. Indemnification for Expenses in a Proceeding in Which Indemnitee is Wholly or Partly Successful.

(a) Successful Defense. Notwithstanding any other provisions of this Agreement, to the extent Indemnitee has been successful, on the merits or otherwise, in defense of any Proceeding (including, without limitation, an action by or in the right of the Company) in which Indemnitee was a party by reason of the fact that Indemnitee is or was an Agent of the Company at any time, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by or on behalf of Indemnitee in connection with the investigation, defense or appeal of such Proceeding.

(b) Partially Successful Defense. Notwithstanding any other provisions of this Agreement, to the extent that Indemnitee is a party to any Proceeding (including, without limitation, an action by or in the right of the Company) in which Indemnitee was a party by reason of the fact that Indemnitee is or was an Agent of the Company at any time and is successful, on the merits or otherwise, as to one or more but less than all claims, issues or matters in such Proceeding, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by or on behalf of Indemnitee in connection with each successfully resolved claim, issue or matter.

(c) Dismissal. For purposes of this section and without limitation, the termination of any claim, issue or matter in such a Proceeding by dismissal, with or without prejudice, shall be deemed to be a successful result as to such claim, issue or matter.

(d) Contribution. If the indemnification provided in this Agreement is unavailable and may not be paid to Indemnitee, then to the extent allowed by law, in respect of any threatened, pending or completed Proceeding in which the Company is jointly liable with Indemnitee (or would be if joined in such Proceeding), the Company shall contribute to the amount of expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred and paid or payable by Indemnitee in such proportion as is appropriate to reflect (i) the relative benefits received by the Company on the one hand and Indemnitee on the other hand from the transaction from which such Proceeding arose, and (ii) the relative fault of Company on the one hand and of Indemnitee on the other in connection with the events which resulted in such expenses, judgments, fines or settlement amounts, as well as any other relevant equitable considerations. The relative fault of the Company on the one hand and of Indemnitee on the other shall be determined by reference to, among other things, the parties' relative intent, knowledge, access to information, active or passive conduct, and opportunity to correct or prevent the circumstances resulting in such expenses, judgments, fines or settlement amounts. The Company agrees that it would not be just and equitable if contribution pursuant to this section were determined by pro rata allocation or any other method of allocation which does not take account of the foregoing equitable considerations.

(e) Settlements by Company. The Company may not settle any claim held by Indemnitee without express written consent of Indemnitee, which may be given or withheld in Indemnitee's sole discretion.

6. Mandatory Advancement of Expenses.

(a) Subject to the terms of this Agreement and following notice pursuant to Section 7(a) below, the Company shall advance, interest free, all Expenses reasonably incurred by Indemnitee in connection with the investigation, defense, settlement or appeal of any Proceeding to which Indemnitee is a party or is threatened to be made a party by reason of the fact that Indemnitee is or was an Agent of the Company (unless there has been a Final Adjudication such that Indemnitee is not entitled to indemnification for such Expenses) upon receipt satisfactory documentation supporting such Expenses. Such advances are intended to be an obligation of the Company to Indemnitee hereunder and shall in no event be deemed to be a personal loan. Such advancement of Expenses shall otherwise be unsecured and without regard to Indemnitee's ability to repay. The advances to be made hereunder shall be paid by the Company to Indemnitee within 30 days following delivery of a written request therefore by Indemnitee to the Company, along with such documentation and information as is reasonably available to the Indemnitee and is reasonably necessary to determine whether and to what extent the claimant is entitled to advancement (which shall include without limitation reasonably detailed invoices for legal services, but with disclosure of confidential work product not required if that would work a waiver of privilege as to an adverse party). The Company shall discharge its advancement duty by, at its option, (a) paying such Expenses on behalf of Indemnitee, (b) advancing to Indemnitee funds in an amount sufficient to pay such Expenses, or (c) reimbursing Indemnitee for Expenses already paid by Indemnitee. In the event that the Company fails to pay Expenses as incurred by Indemnitee as required by this paragraph, Indemnitee may seek mandatory injunctive relief (including without limitation specific performance) from any court having jurisdiction to require the Company to pay Expenses as set forth in this paragraph. If Indemnitee seeks mandatory injunctive relief pursuant to this paragraph, it shall not be a defense to enforcement of the Company's obligations set forth in this paragraph that Indemnitee has an adequate remedy at law for damages.

(b) **Undertakings**. Indemnitee shall qualify for advances upon the execution and delivery to the Company of this Agreement, which constitutes an undertaking whereby Indemnitee promises to repay any amounts advanced if and to the extent that it shall ultimately be determined that Indemnitee is not entitled to indemnification by the Company.

7. Notice and Other Indemnification Procedures.

(a) **Notice by Indemnitee**. Promptly after receipt by Indemnitee of notice of the commencement of or the threat of commencement of any Proceeding, Indemnitee shall, if Indemnitee believes that indemnification with respect thereto may be sought from the Company under this Agreement, notify the Company in writing of the commencement or threat of commencement thereof *provided*, *however*, that a delay in giving such notice will not deprive Indemnitee of any right to be indemnified under this Agreement unless, and then only to the extent that, the Company did not otherwise learn of the Proceeding and such delay is materially prejudicial to the Company; *provided*, *further*, that notice will be deemed to have been given without any action on the part of Indemnitee in the event the Company is a party to the same Proceeding and already has notice of all the matters for which Indemnitee is demanding indemnification and advancement.

(b) **Insurance**. If the Company receives notice pursuant to Section 7(a) of the commencement of a Proceeding that may be covered under D&O Insurance then in effect, the Company shall give prompt notice of the commencement of such Proceeding to the insurers in accordance with the procedures set forth in the respective policies.

(c) Defense. In the event the Company shall be obligated to pay the Expenses of any Proceeding against Indemnitee, the Company shall be entitled to assume the defense of such Proceeding, with counsel selected by the Company and approved by Indemnitee (which approval shall not be unreasonably withheld), upon the delivery to Indemnitee of written notice of the Company's election so to do. After delivery of such notice, and the retention of such counsel by the Company, the Company will not be liable to Indemnitee under this Agreement for any fees of counsel subsequently incurred by Indemnitee with respect to the same Proceeding; *provided* that (i) Indemnitee shall have the right to employ his or her own counsel in any such Proceeding at Indemnitee's expense; and (ii) Indemnitee shall have the right to employ his or her own counsel in any such Proceeding at the Company's expense if (A) the Company has authorized the employment of counsel by Indemnitee at the expense of the Company; (B) Indemnitee shall have reasonably concluded based on the written advice of Indemnitee's legal counsel that there may be a conflict of interest between the Company and Indemnitee in the conduct of any such defense; or (C) the Company shall not, in fact, have employed counsel to assume the defense of such Proceeding. In addition to all the requirements above, if the Company has D&O Insurance, or other insurance, with a panel counsel requirement that may cover the matter for which indemnity is claimed by Indemnitee, then Indemnitee shall use such panel counsel or other counsel approved by the insurers, unless there is an actual conflict of interest posed by representation by all such counsel, or unless and to the extent Company waives such requirement in writing. Indemnitee and his or her counsel shall provide reasonable cooperation with such insurer on request of the Company.

8. Right to Indemnification.

(a) Right to Indemnification. In the event that Section 5(a) is inapplicable, the Company shall indemnify Indemnitee pursuant to this Agreement unless, and except to the extent that, it shall have been determined by one of the methods listed in Section 8(b) that Indemnitee has not met the applicable standard of conduct required to entitle Indemnitee to such indemnification.

(b) Determination of Right to Indemnification. A determination of Indemnitee's right to indemnification under this Section 8 shall be made at the election: (i) by a majority vote of directors who are not parties to the Proceeding for which indemnification is being sought, even though less than a quorum; (ii) by a committee of the Board consisting of directors who are not parties to the Proceeding for which indemnification is being sought, who, even though less than a quorum, have been designated by a majority vote of the disinterested directors; (iii) if there are no such disinterested directors or if the disinterested directors so direct, by Independent Counsel chosen by the Company in a written opinion to the Board, a copy of which shall be delivered to Indemnitee; or (iv) by the Company's stockholders. However, in the event there has been a Change in Control, then the determination shall, at Indemnitee's sole option, be made by Independent Counsel as in (b)(iii) above, with Company choosing the Independent Counsel subject to Indemnitee's consent, such consent not to be unreasonably withheld.

(c) Submission for Decision. As soon as practicable, and in no event later than 30 days after Indemnitee's written request for indemnification, the Board shall select the method for determining Indemnitee's right to indemnification. Indemnitee shall cooperate with the person or persons or entity making such determination with respect to Indemnitee's right to indemnification, including providing to such person, persons or entity, upon reasonable advance request, any documentation or information which is not privileged or otherwise protected from disclosure and which is reasonably available to Indemnitee and reasonably necessary to such determination. Any Independent Counsel or member of the Board shall act reasonably and in good faith in making a determination regarding Indemnitee's entitlement to indemnification under this Agreement.

(d) Application to Court. If (i) a claim for indemnification or advancement of Expenses is denied, in whole or in part, (ii) no disposition of such claim is made by the Company within 60 days after the request therefore, (iii) the advancement of Expenses is not timely made pursuant to Section 6 of this Agreement or (iv) payment of indemnification is not made pursuant to Section 5 of this Agreement, Indemnitee shall have the right at his or her option to apply to the Delaware Court of Chancery, the court in which the Proceeding is or was pending, or any other court of competent jurisdiction, for the purpose of enforcing Indemnitee's right to indemnification (including the advancement of Expenses) pursuant to this Agreement. Upon written request by Indemnitee, the Company shall consent to service of process.

(e) Expenses Related to the Enforcement or Interpretation of this Agreement. The Company shall indemnify Indemnitee against all reasonable Expenses incurred by Indemnitee in connection with any hearing or proceeding under this Section 8 involving Indemnitee, and against all reasonable Expenses incurred by Indemnitee in connection with any other proceeding between the Company and Indemnitee to the extent involving the interpretation or enforcement of the rights of Indemnitee under this Agreement, if and to the extent Indemnitee is successful.

(f) Determination of Final Adjudication. In no event shall Indemnitee's right to indemnification (apart from advancement of Expenses) be determined prior to a Final Adjudication in a Proceeding at issue if the Proceeding is both ongoing, and of the nature to have a Final Adjudication, unless a Final Adjudication in another Proceeding establishes that Indemnitee is not entitled to indemnification in the first Proceeding

(g) Standard. In any proceeding to determine Indemnitee's right to indemnification or advancement, Indemnitee shall be presumed to be entitled to indemnification or advancement, with the burden of proof on the Company to prove, by a preponderance of the evidence (or higher standard if required by relevant law) that Indemnitee is not so entitled.

(h) Good Faith. Indemnitee shall be fully indemnified for those matters where, in the performance of his or her duties for the Company, he or she relied in good faith upon the records of the Company and upon such information, opinions, reports or statements presented to the Company by any of the Company's officers or employees, or committees of the board of directors, or by any other person as to matters Indemnitee reasonably believed were within such other person's professional or expert competence and who was selected with reasonable care by or on behalf of the Company.

9. Exceptions. Any other provision herein to the contrary notwithstanding, the Company shall not be obligated:

(a) Claims Initiated by Indemnitee. To indemnify or advance Expenses to Indemnitee with respect to Proceedings or claims initiated or brought voluntarily by Indemnitee (including cross actions), with a reasonable allocation where appropriate, unless (i) such indemnification is expressly required to be made by law, (ii) the Proceeding was authorized by the Board, (iii) such indemnification is provided by the Company, in its sole discretion, pursuant to the powers vested in the Company under the DGCL or (iv) the Proceeding is brought pursuant to Section 8 specifically to establish or enforce a right to indemnification under this Agreement or any other statute or law or otherwise as required under Section 145 in advance of a Final Adjudication, in which case Section 8(e) provision shall control. For clarity, the raising of defenses by the Company by way of argument or affirmative defenses in an Indemnitee-initiated Proceeding against the Company shall not themselves be deemed to be a Proceeding.

(b) Fees on Fees. To indemnify Indemnitee for any Expenses incurred by Indemnitee with respect to any Proceeding instituted by Indemnitee to enforce or interpret this Agreement, to the extent Indemnitee is not successful in such a Proceeding.

(c) Unauthorized Settlements. To indemnify Indemnitee under this Agreement for any amounts paid in settlement of a Proceeding unless the Company consents to such settlement, which consent shall not be unreasonably withheld.

(d) Claims Under Section 16(b). To indemnify Indemnitee for Expenses associated with any Proceeding related to, or the payment of profits made from the purchase and sale (or sale and purchase) by Indemnitee of securities of the Company within the meaning of Section 16(b) of the Exchange Act, or similar provisions of state statutory law or common law (provided, however, that the Company must advance Expenses for such matters as otherwise permissible under this Agreement).

(e) **Payments Contrary to Law**. To indemnify or advance Expenses to Indemnitee for which payment is prohibited by applicable law.

(f) **Required Reimbursement**. To indemnify Indemnitee for any reimbursement of the Company by Indemnitee of any compensation, including bonus or other incentive-based or equity-based compensation or of any profits realized by Indemnitee from the sale of securities of the Company, as required in each case under the Securities Act or the Exchange Act (including without limitation reimbursements that (i) arise from an accounting restatement of the Company pursuant to Section 304 of the Sarbanes-Oxley Act of 2002, as amended ("***Sarbanes-Oxley***") or the payment to the Company of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 306 of Sarbanes-Oxley, or (ii) arise pursuant to regulations or policies adopted in compliance with Section 954 of the Investor Protection and Securities Reform Act of 2010, as amended).

10. **Non-Exclusivity**. The provisions for indemnification and advancement of Expenses set forth in this Agreement shall not be deemed exclusive of any other rights which Indemnitee may have under any provision of law, the Company's Certificate of Incorporation or Bylaws, the vote of the Company's stockholders or disinterested directors, other agreements, or otherwise, both as to action in Indemnitee's official capacity and as to action in another capacity while occupying Indemnitee's position as an Agent of the Company. Indemnitee's rights hereunder shall continue after Indemnitee has ceased acting as an Agent of the Company and shall inure to the benefit of the heirs, executors and administrators of Indemnitee. This Agreement shall supersede all prior indemnification agreements with the Company; *provided*, Indemnitee is entitled to any advancement or indemnification rights (pursuant to the Company's Certificate of Incorporation, Bylaws, a prior indemnification agreement, or other agreement) in effect at the time of Indemnitee's service that is at issue in the matter potentially subject to indemnification, to the extent such rights are more favorable to Indemnitee than those granted herein.

11. **Permitted Defenses**. It shall be a defense to any action for which a claim for indemnification is made under this Agreement (other than an action brought to enforce a claim for Expenses pursuant to Section 6; *provided* that the required documents have been tendered to the Company) that Indemnitee is not entitled to indemnification because of the limitations set forth in Sections 4 and 9 . Neither the failure of the Company or an Independent Counsel to have made a determination prior to the commencement of such enforcement action that indemnification of Indemnitee is proper in the circumstances, nor an actual determination by the Company or an Independent Counsel that such indemnification is improper, shall be a defense to the action or create a presumption that Indemnitee is not entitled to indemnification under this Agreement or otherwise. In making any determination concerning Indemnitee's right to indemnification, there shall be a presumption that Indemnitee has satisfied the applicable standard of conduct. Any determination by the Company concerning Indemnitee's right to indemnification that is adverse to Indemnitee may be challenged by the Indemnitee in the Court of Chancery of the State of Delaware.

12. **Subrogation**. Subject to the limitations of Section 13, in the event the Company is obligated to make a payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who shall execute all documents reasonably required and take all action that may be necessary to secure such rights and to enable the Company effectively to bring suit to enforce such rights (provided that the Company pays Indemnitee's costs and expenses of doing so), including without limitation by assigning all such rights to the Company or its designee to the extent of such indemnification or advancement of Expenses. Subject to the limitations of Section 13, the Company's obligation to indemnify or advance expenses under this Agreement shall be reduced by any amount Indemnitee has collected from such other source, and in the event that Company has fully paid such indemnity or expenses, Indemnitee shall return to the Company any amounts subsequently received from such other source of indemnification.

13. **Primacy of Indemnification**. The Company acknowledges that Indemnitee may have certain rights to indemnification, advancement of expenses, or liability insurance, neither procured or provided by the Company (including for this section any parent, affiliate, subsidiary, investment vehicle, or joint venture of the Company) nor any entity Indemnitee served or is serving at the direction of the Company, from a third party (collectively, the "***Third Party Indemnitors***"). The Company agrees that (i) it is the indemnitor of first resort, *i.e.*, its obligations to Indemnitee under this Agreement and any indemnity provisions set forth in its Certificate of Incorporation, Bylaws or elsewhere (collectively, "***Indemnity Arrangements***") are primary, and any obligation of the Third Party Indemnitors to advance expenses or to provide indemnification for the same expenses or liabilities incurred by Indemnitee is secondary and excess, (ii) it shall advance the full amount of expenses incurred by Indemnitee and shall be liable for the full amount of all expenses, judgments, penalties, fines and amounts paid in settlement by or on behalf of Indemnitee, to the extent legally permitted and as required by any Indemnity Arrangement, without regard to any rights Indemnitee may have against the Third Party Indemnitors, and (iii) it irrevocably waives, relinquishes and releases the Third Party Indemnitors from any claims against the Third Party Indemnitors for contribution, subrogation or any other recovery of any kind arising out of or relating to any Indemnity Arrangement. The Company further agrees that no advancement or indemnification payment by any Third Party Indemnitor on behalf of Indemnitee shall affect the foregoing, and the Third Party Indemnitors shall be subrogated to the extent of such advancement or payment to all of the rights of recovery of Indemnitee against the Company. The Company and Indemnitee agree that the Third Party Indemnitors are express third party beneficiaries of the terms of this Section 13. The Company, on its own behalf and on behalf of its insurers to the extent allowed by its insurance policies, waives subrogation rights against Indemnitee and Third Party Indemnitors.

14. **No Imputation**. The knowledge or actions, or failure to act, of any director, officer, employee, or agent of the Company, or the Company itself shall not be imputed to Indemnitee for the purpose of determining Indemnitee's rights hereunder.

15. **Survival of Rights**.

(a) All agreements and obligations of the Company contained herein shall continue during the period Indemnitee is an Agent of the Company and shall continue thereafter so long as Indemnitee shall be subject to any possible claim or threatened, pending or completed Proceeding by reason of the fact that Indemnitee was serving in the capacity referred to herein.

(b) The Company shall require any successor to the Company (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business or assets of the Company, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place.

16. **Severability**. If any provision or provisions of this Agreement shall be held to be invalid, illegal or unenforceable for any reason whatsoever, (i) the validity, legality and enforceability of the remaining provisions of the Agreement (including, without limitation, all portions of any paragraphs of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that are not themselves invalid, illegal, or unenforceable) shall not in any way be affected or impaired thereby, and (ii) to the fullest extent possible, such remaining provisions shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal, or unenforceable.

17. **Modification and Waiver**. No supplement, modification, or amendment of this Agreement shall be binding unless it is in a writing signed by both of the parties hereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions (even if similar) nor shall such waiver constitute a continuing waiver.

18. **Notice**. All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed to have been duly given (a) upon delivery if delivered by hand to the party to whom such notice or other communication shall have been directed, (b) if mailed by certified or registered mail with postage prepaid, return receipt requested, on the third business day after the date on which it is so mailed, (c) one (1) business day after the business day of deposit with a nationally recognized overnight delivery service, specifying next day delivery, with written verification of receipt, or (d) on the same day as delivered by electronic transmission if delivered during business hours or on the next successive business day if delivered by electronic transmission after business hours. Addresses for notice to either party shall be as shown on the signature page of this Agreement, or to such other address as may have been furnished by either party in the manner set forth above.

19. **Governing Law**. This Agreement shall be governed exclusively by and construed according to the laws of the State of Delaware as applied to contracts between Delaware residents entered into and to be performed entirely within Delaware. This Agreement is intended to be an agreement of the type contemplated by Section 145(f) of the DGCL.

20. **Counterparts**. This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original but all of which together shall constitute one and the same Agreement, and electronically transmitted signatures shall be valid.

(*Signature page follows*)

The parties hereto have entered into this Indemnification Agreement, including the undertaking contained herein, effective as of the date first above written.

COMPANY:

AKOYA BIOSCIENCES, INC.

By: _____
Name:
Title:

The parties hereto have entered into this Indemnification Agreement, including the undertaking contained herein, effective as of the date first above written.

INDEMNITEE:

[NAME]

Address: _____

_____

Exhibit 10.5

CONFIDENTIAL

June 28, 2017

Brian McKelligon
[***]
[***]

Dear Brian,

I am very pleased to provide you with this offer ("Offer") to join Akoya Biosciences, Inc. ("Akoya" or the "Company") in the position of Chief Executive Officer reporting to the Board of Directors. We are very excited about having you lead the Company through the commercialization and growth stage of its development, which will involve building a talented group of executives and employees, launching Akoya's Codex technology, growing revenues for its instruments, kits, services and software, developing a pipeline of new products and intellectual property, and managing its resources in a capital efficient manner.

This Offer and your start date are contingent upon the completion of an institutional fundraise, which is expected to be completed around July 7th. Your start date will be July 10, 2017. The terms of the Offer are as follows:

1. Annual Salary and Objective-Based Bonus: You will be paid an annual salary of $260,000 in semi-monthly installments. Payments will be subject to deductions for taxes and other withholdings as required by law or the policies of the Company. In addition, you will have an opportunity to earn an annual bonus of up to $65,000 based upon milestones to be mutually agreed upon.

2. Equity: Subject to Board approval, you will be provided an option to acquire an amount of shares equivalent to 3% of the Company's fully diluted shares following the closing of the first institutional fund raise, under the Company's stock option plan, subject to standard four year vesting requirements (with a one year cliff). You will also be granted an option to acquire an amount of shares equivalent to 1% of the Company's fully diluted shares following the closing of the first institutional fund raise subject to vesting based on achievement of certain milestones to be mutually agreed upon by you and the Company.

3. Benefits: The Company will reimburse you for healthcare insurance coverage (to include medical, dental and vision for your family) costs as per Company policy. Disability and life insurance will be provided for you when it is offered by the Company as an employee benefit. Akoya will also provide you with two weeks of paid vacation per year and up to 5 days of paid sick leave. Vacation and sick leave shall not accrue from year to year.

4. Severance: In the event of a termination of your employment pursuant to a Constructive Termination or a termination without Cause, the Company will pay your Salary and continued Benefits for: a) a period of 3 months following termination without Cause if termination occurs within 6 months of your start date or b) a period of 6 months following termination without Cause if termination occurs after 6 months of your start date. All payments will be made in accordance with the Company's normal payroll practices. "Cause" and "Constructive Termination" shall have the meaning set forth in Exhibit A. You agree that as a condition to receiving any severance compensation, you will execute and deliver to the Company a separation and release agreement pursuant to which you will release and waive all claims against the Company, its affiliates, and all of its and their present and/or former members, owners, officers, directors, employees, agents, attorneys and representatives.

5. Change of Control: In the event of a Change of Control as defined in Exhibit A, all outstanding, unvested equity granted to you shall fully vest immediately prior to or on the date of such Change of Control. Section 4 above shall also apply upon any Change of Control.

6. Non-Competitive Activity: You will be allowed dedicate approximately 10 hours per month toward business consulting efforts with additional organizations if such organizations are non-competitive with the Company. You will provide the Board of Directors with a summary of such activities and time devoted each month. The Board of Directors shall have the right to determine if any of these engagements is competitive and can request that you terminate such relationships.

7. Annual Review: An annual review of your compensation will be completed to evaluate potential increases in cash and/or equity compensation as outlined above. For clarification, this review does not imply any commitment on behalf of the Board of Directors to any increase in either cash or equity.

Subject to the provisions in this Offer, your employment with Akoya is at-will and either you or the Company can terminate the relationship at any time with or without cause and with or without notice. Your acceptance of this Offer and commencement of employment with the Company are contingent upon your execution of the Company's standard form of Confidential Information and Invention Assignment Agreement.

You acknowledge that this Offer represents the entire agreement between you and Akoya and that no verbal or written agreements, promises or representations that are not specifically stated in this offer, are or will be binding upon Akoya.

We look forward to your joining the Akoya team and believe that you will find the experience to be very rewarding. I am very much looking forward to working with you. Please let me know if you have any questions. If you are in agreement with the above outline, please sign below.

Sincerely,

/s/ Deval Lashkari
Deval Lashkari
Director

I hereby am willing to accept employment on the conditions set forth in this letter.

/s/ Brian McKelligon
Brian McKelligon

29 June 2017
Date

EXHIBIT A

"Constructive Termination" shall mean (i) without your written consent, a material reduction in your Annual Salary, Objective-Based Bonus or Benefits, other than those part of a management-wide reduction, (ii) any material failure by the Company to comply with the provisions of this Offer, (iii) any action that results in a material diminution in your title, duties or responsibilities unless such changes are mutually agreed upon, (iv) a failure of a successor-in-interest under a Change of Control to assume all of the obligations of the company under this Offer, and (v) without your written consent, a requirement of relocation to a location more than 30 miles away from your current home address. In order to establish a "Constructive Termination" for terminating employment, you must provide written notice to the Company of the existence of the condition giving rise to the Constructive Termination and the Company must be provided with thirty (30) days thereafter to cure the condition to the extent that any of such reasons are susceptible to cure, such satisfaction to be reasonably determined by you.

"Cause" shall mean: (i) any act or omission by you which has an adverse effect on the Company's business or on your ability to perform services for the Company, including, without limitation, the commission of, or a guilty or no contest plea to, any crime (other than ordinary traffic violations), (ii) refusal or failure to perform reasonably assigned duties, serious misconduct, excessive absenteeism, a breach by you of your fiduciary duty to the Company, or an act of fraud or dishonesty in the performance of your duties, (iii) refusal or failure to comply with the Company's policies, or (iv) any breach of your obligations or duties under any written agreement between the Company and you, including, without limitation, this Offer.

"Change of Control" shall mean the consummation of a reorganization, merger or consolidation, or sale or other disposition of all or substantially all of the assets of the Company, or the acquisition of assets of another corporation or entity, or other similar transaction (each, a "Business Combination"), unless, in each case, immediately following such Business Combination (A) all or substantially all of the individuals and entities who were the beneficial owners of voting stock of the Company immediately prior to such Business Combination beneficially own, directly or indirectly, more than 50% of the combined voting power of the then outstanding shares of voting stock of the entity resulting from such Business Combination (including, without limitation, an entity which as a result of such transaction owns the Company or all or substantially all of the Company's assets either directly or through one or more subsidiaries,) and (B) at least a majority of the members of the Board of Directors of the entity resulting from such Business Combination were members of the Board of Directors of the Company at the time of the execution of the initial agreement or of the action of the Board providing for such Business Combination.

Exhibit 10.6

CONFIDENTIAL

October 8, 2018

Brian McKelligon
[***]
[***]
[***]

Letter Amendment to "Brian McKelligon Offer Letter - 20170705"

Dear Brian,

I am very pleased inform you of the following addendum to your compensation as outlined in your signed offer dated July 5, 2017, *Brian McKelligon Offer Letter - 20170705* ("**Agreement**")

8. Annual Salary and Objective-Based Bonus: Effective September 28, 2018, you will be paid an annual salary of $300,000 in semi-monthly installments. Payments will be subject to deductions for taxes and other withholdings as required by law or the policies of the Company. In addition, you will have an opportunity to earn an annual bonus of up to 30% of your annual salary based upon milestones to be mutually agreed upon between you and the Board of Directors. Your prior and new bonus amounts will be calculated on a pro-rated basis with the increase for this revised bonus amount effective on September 28, 2018.

9. Equity: Subject to Board approval, you will be provided an option to acquire 578,581 shares, under the Company's stock option plan, subject to standard four-year vesting requirements (with a one-year cliff). You will also be granted an option to acquire 192,860 shares subject to vesting based on achievement of certain milestones to be mutually agreed upon by you and the Board of Directors. The total shares provided through this new option grant plus the shares from your existing option grant shall equal 3% of the Company's fully diluted shares following the closing of the Company's Series C financing.

The Board thank you for your continued dedication and hard

Sincerely,

/s/ Robert Shepler
Robert Shepler
Board Director
Akoya Biosciences, Inc.

I acknowledge and accept the compensation changes outline

/s/ Brian McKelligan
Brian McKelligan
CEO
Akoya Biosciences, Inc.

October 8, 2018
Date

Exhibit 10.7

January 28, 2019

Joseph S. Driscoll, CPA
[***]
[***]

Re. Employment by Akoya Biosciences, Inc.

Dear Joe,

I am pleased to provide you with this offer to join Akoya Biosciences, Inc. (“Akoya” or the “Company”) in the position of Chief Financial Officer. We are excited to have you as a critical member of the executive learn reporting to Chief Executive Officer, Brian McKelligon. This offer and your start date are contingent on the full execution of this letter agreement. This offer expires at the end of business on January 30, 2019. We anticipate your start date to be on or before March 15, 2019. Following the execution of this offer letter, Akoya will enter into a separate consulting agreement with you to bridge the gap until your start date.

Compensation

You will be paid an annual a salary of $300,000, payable in semi-monthly installments, subject to applicable tax withholding requirements. In addition, you will have the opportunity to earn an annual cash bonus of up to $100,000 based a combination of your personal and the Company's annual goal achievement. Personal and Company goals will be determined and approved by the CEO and Board of Directors. The payment of any bonus shall be subject to your continued employment by the Company through the date of payment.

Equity Incentive

The Company will offer you participation in our equity incentive program. Subject to Board approval, you will be provided an option to acquire the number of shares equivalent to 1.35% on a fully diluted basis of Akoya's common stock under the Company's stock option plan (the “initial Option”). You will vest 25% of the shares of the Initial Option after one year of employment with the remaining shares vesting in equal monthly installments over the subsequent 38 months. Additionally, subject to Board approval, you will also be granted an option to acquire an additional 0.5% of the Company's shares, (the “Performance Option” and together with the Initial Option, the “Options”). The Performance Option will fury vest upon the achievement of certain milestones to be determined by the CEO and Board of Directors. The vesting of the Options is subject to your continued employment with the company. In the event of both a Change of Control, as defined in Akoya's 2015 Equity Incentive Plan (provided separately), and the termination of your employment, all outstanding, unvested Options granted to you shall fully vest.

Employee Benefits

In addition to the standard company holidays, Akoya will provide you paid vacation, sick days and the option to enroll in the Company's health and other benefit plans. Please refer to the attached benefits guide for details. Akoya Biosciences, Inc. will reimburse you for business travel and other approved business expenses.

Employment Relationship

Your employment with Akoya is at-will and either you or the Company can terminate your employment at any time with or without cause and with or without notice. Your acceptance of this offer and commencement of employment with the Company are contingent upon the signing of this letter and your execution of the Company's Confidential Information and Invention Assignment Agreement. In addition, in the event the Company terminates your employment without cause, the Company will provide a lump sum payment equal to six months of your base salary at the date of termination.

Your position, job description, salary, and responsibilities may be modified from time to time at the sole discretion of the CEO and Board of Directors. You agree to devote your full business time, attention and best efforts to Akoya during the term of your employment. We understand that you may need to spend limited time assisting with the transition of your current pubic company responsibilities for approximately 30 days after March 15 but all this time will be spent during off hours and it is anticipated not to exceed 5 hours per week. You further agree to adhere to the Company policies as set forth in the Employee Handbook.

All forms of compensation referred to in this letter are subject to withholdings and any other deductions required by applicable law.

Counterparts

This letter may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Execution of a facsimile or scanned image will have the same force and effect as execution of an original, and a facsimile signature or scanned image will be deemed an original and valid signature.

If you wish to accept this offer, please sign and date this letter and the enclosed Confidential Information and Invention Assignment Agreement and return them to me. As required by law, your employment with the Company is also contingent upon your providing legal proof of your Identity and authorization to work in the United States.

We look forward to you joining the Akoya team and believe that together we can build a transformative company. We are delighted to offer you this opportunity and are excited that you are joining our leadership team.

Sincerely,

Brian McKelligon
Chief Executive Officer

I have read and understand the provisions of this offer letter, and I accept the offer of employment.

/s/ Joe Driscoll
Joe Driscoll

January 28, 2019
Date

Attachments: ***Benefits Summary***
Confidential Information and invention Assignment Agreement

Exhibit 10.8

July 14, 2020

Niroshan Ramachandran, Ph.D.
[***]
[***]

Re: Employment by Akoya Biosciences, Inc.

Dear Niro:

We are very excited about the prospects of your joining Akoya Biosciences, Inc. Should you accept this offer and upon successful completion of a background check and drug screen we look forward to having you joining the company as a regular, full-time employee. This letter will confirm the terms of your employment.

Position and Duties:

You shall serve in the position of Chief Strategy & Marketing Officer with Akoya Biosciences, Inc. reporting to Brian McKelligon, Chief Executive Officer.

Your position, job description, manager, salary, duties and responsibilities may be modified from time to time in the sole discretion of Akoya Biosciences, Inc. You agree to strictly adhere to all of the rules and regulations of Akoya Biosciences, Inc. as may be set forth in any Employee Handbook or published policies of Akoya Biosciences, Inc. now or in the future, including all amendments to the Handbook which may be made in the future in Akoya Biosciences, Inc.'s sole discretion (as published or amended from time to time, the "Manual").

Compensation:

(a) **Salary**. Akoya Biosciences, Inc. shall pay you, and you agree to accept from Akoya Biosciences, Inc. in payment for your services to Akoya Biosciences, Inc., a salary of **$300,000.00** per year (the "Yearly Salary"), payable in 24 equal installments of **$12,500.00** on regular semi-monthly dates established by Akoya Biosciences, Inc., subject to applicable tax withholding requirements. Any proposed increase of your salary, compensation or benefits must be approved by Akoya's CEO, Brian McKelligon.

(b) **Annual Bonus**. The Company has created an incentive pay plan under which you may be eligible for an **annual cash incentive bonus** (the "Bonus"). Your annual target bonus opportunity (the "Bonus") will be **30% of your annual base salary**. The actual Bonus payment received for fiscal year 2020 will be prorated based upon your start date with the Company and at the sole discretion of the Company. Any bonus will be based on a combination of your personal achievement as well as the Company's ability to meet its financial performance objectives. The payment of any Bonus shall be subject to your continued employment through the date of payment by the Company.

(c) **Incentive Stock Options**. The Company will offer you participation in an **Equity Incentive Program**. Subject to approval by the Board of Directors of the Company (the "Board"), you will be provided an option to acquire the number of shares equivalent to **400,000 shares** of the Company's common stock under the Company's stock option plan (the "Option"). You will vest as to 25% of the shares subject to the Option on the first anniversary of your date of employment, with the remaining 75% of the shares subject to the Option vesting in equal monthly installments over the subsequent 36 months on the same day of the month as your date of employment, subject to your continued service to the Company through each applicable vesting date. The exercise price per share of the Option will be equal to the fair market value per share of the Company's common stock on the date the Option is granted, as determined by the Board in good faith. There is no guarantee that the Internal Revenue Service will agree with this value. You should consult with your own tax advisor concerning the tax consequences associated with accepting the Option.

No Other Employment:

You agree to devote your full business time, attention and best efforts to the business of Akoya Biosciences, Inc. during the employment relationship. Akoya Biosciences, Inc.'s normal business hours are from 8:30 a.m. to 5:30 p.m., Monday through Friday. As an exempt salaried employee, however, you may be required to work additional hours depending on the nature of your work assignments.

Time Off:

Employees at this compensation band are afforded unlimited PTO under the Akoya PTO policy as stated in the Employee Handbook.

Company Holidays:

The Company offers 9 paid Holidays per calendar year. The company holidays are listed in the benefits guide.

Business Travel:

Company will reimburse reasonable travel and lodging related expenses associated with business travel.

Benefit Plans:

You shall be entitled to participate in any standard health and other benefit plans established by Akoya Biosciences, Inc. on terms as may be established by Akoya Biosciences, Inc. in its sole discretion. Although you may be eligible for such benefits if they become available in the future, Akoya Biosciences, Inc. does not promise or represent that such benefits will in fact become available or that once made available they will be continued.

Employee Expenses:

Akoya Biosciences, Inc. will reimburse you for pre-approved business expenses (approved by the Chief Executive Officer, President, or the Board of Directors), as provided within the guidelines of Akoya Biosciences, Inc.'s expense policy. All expenses shall be subject to review and approval by your direct report and the CFO and shall require reasonable documentation.

Confidential Information and Invention Assignment Agreement:

As a condition of your employment with Akoya Biosciences, Inc., you acknowledge that you have executed and delivered a copy of Akoya Biosciences, Inc.'s Proprietary Information and Inventions Agreement and will abide by its terms. You acknowledge that a remedy at law for any breach or threatened breach by you of the provisions of the Proprietary Information and Inventions Agreement would be inadequate, and you therefore agree that Akoya Biosciences, Inc. shall be entitled to injunctive relief in case of any such breach or threatened breach.

At-Will Employment:

Employment with Akoya Biosciences, Inc. is employment at-will. Employment at-will may be terminated with or without cause and with or without notice at any time at the will of either you or Akoya Biosciences, Inc. Terms and conditions of employment with Akoya Biosciences, Inc. may be modified at the sole discretion of Akoya Biosciences, Inc. with or without cause and with or without notice. Other than the Chief Executive Officer ("CEO"), no one has the authority to make any agreement for employment other than for employment at-will or to make any agreement limiting Akoya Biosciences, Inc.'s discretion to modify the terms and conditions of employment. Only the CEO has the authority to make any such agreement and then only in writing and signed by each of the CEO and the respective employee. No implied contract concerning any employment-related decision or term, or condition of employment can be established by any other statement, conduct, policy, or practice.

Governing Law:

This Agreement is made and shall be construed and enforced in accordance with the laws of the State of California. This Agreement and the Exhibits supersede and replace all prior agreements or understandings, oral or written, between Akoya Biosciences, Inc. and you, except for prior confidentiality agreements, if any. This Agreement may not be modified except by a writing signed both by the CEO and by you.

Arbitration:

In the event of any dispute in connection with this Agreement or the Exhibits the parties agree to resolve the dispute by binding arbitration in San Francisco, California, under the Commercial Arbitration Rules of the American Arbitration Association ("AAA"), with a single arbitrator familiar with employment and technology agreements appointed by AAA. In the event of any dispute the prevailing party shall be entitled to its reasonable attorneys' fees and costs from the other party, whether or not the matter is litigated or arbitrated to a final judgment or award. The arbitrator's decision shall be final and binding on all parties and may be entered in any court having competent jurisdiction.

Severability:

If any provision of this Agreement or the Exhibits is determined to be invalid or unenforceable, the remainder shall be unaffected and shall be enforceable against both Akoya Biosciences, Inc. and you.

This offer is contingent upon a background check clearance, reference check, drug test and satisfactory proof of the employee's night to work in the US, as required by law.

Employee Review and Receipt of Agreement:

You acknowledge that you have carefully read and considered all provisions of this Agreement and the Exhibits and agree that all of the restrictions set forth herein are fair and reasonably required to protect Akoya Biosciences, Inc.'s interests. You acknowledge that you have received a copy of this Agreement and the Exhibits as signed by you. You acknowledge that, prior to signing this Agreement, you have had an opportunity to seek the advice of independent counsel of your choice relating to the terms of this Agreement.

Sincerely

Akoya Biosciences, Inc

By /s/ Brian McKelligon

Its Chief Executive Officer

Date July 14, 2020

Agreed to and Accepted

/s/ Niroshan Ramachandran	June 22, 2020
[Employee Signature]	[Date]

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

EXCLUSIVE (EQUITY) AGREEMENT

This Agreement between THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY ("Stanford"), an institution of higher education having powers under the laws of the State of California, and Akoya Biosciences, Inc. ("AKOYA"), a Delaware corporation having a principal place of business at 360 Post Street, Suite 601, San Francisco, California, is effective on the 17th day of November, 2015 ("Effective Date").

1. BACKGROUND

Stanford has an assignment of an invention entitled "Slide-based antibody detection with oligos," which was invented in the laboratory of Dr. Garry Nolan, and is described in Stanford Docket S14-157. The invention was made in the course of research supported by the National Institutes of Health. Stanford wants to have the invention perfected and marketed as soon as possible so that resulting products may be available for public use and benefit.

2. DEFINITIONS

2.1 "**Affiliate**" means any person, corporation, or other business entity which controls, is controlled by, or is under common control with another entity; and for this purpose, "control" of a corporation means the direct or indirect ownership of fifty or more percent (50%) of its voting stock, and "control" of any other business entity means the direct or indirect ownership of a fifty percent (50%) or more interest in the income of such entity.

2.2 "**Change of Control**" means the following, as applied only to the entirety of that part of AKOYA's business that exercises all of the rights granted under this Agreement (regardless of whether such a sale or change of control occurs through an asset sale, stock sale, merger or other combination, or any other transfer):

(A) acquisition of ownership-directly or indirectly, beneficially or of record-by any person or group (within the meaning of the Exchange Act and the rules of the SEC or equivalent body under a different jurisdiction) of the capital stock of AKOYA representing more than 50% of either the aggregate ordinary voting power or the aggregate equity value represented by the issued and outstanding capital stock of AKOYA other than financing for capital raising purposes; and/or

(B) the sale of all or substantially all AKOYA's assets and/or business in one transaction or in a series of related transactions.

2.3 "**Exclusive**" means that, subject to Article 3 and Article 5, Stanford will not grant further licenses under the Licensed Patents in the Licensed Field of Use in the Licensed Territory.

2.4 "**Fully Diluted Basis**" means the total number of shares of AKOYA's issued and outstanding common stock, assuming:

(A) the conversion of all issued and outstanding securities convertible into common stock;

(B) the exercise of all issued and outstanding warrants or options, regardless of whether then exercisable; and

(C) the issuance, grant, and exercise of all securities reserved for issuance pursuant to any AKOYA stock or stock option plan then in effect.

2.5 "**Licensed Field of Use**" means all fields.

2.6 "**Licensed Patent**" means Stanford's: U.S. Provisional Application Serial Number [***]; U.S. Patent Application Serial Number [***], PCT Application Serial Number [***], any U.S. and foreign patent applications corresponding thereto, and any conversions, divisionals, continuations, substitutions, or reexamination applications, each patent that issues or reissues from any of these patent applications, any extensions or renewals of any such patents, and any applications claiming priority thereto. Any claim of an unexpired Licensed Patent is presumed to be valid unless it has been held to be invalid by a final judgment of a court of competent jurisdiction from which no appeal can be or is taken. Neither Party will file CIP applications without other Party's prior written consent.

2.7 "**Licensed Product**" means a service, a product or part of a product in the Licensed Field of Use the making, using, importing or selling of which, absent this license, infringes, induces infringement, or contributes to infringement one or more Valid Claim(s) of a Licensed Patent.

2.8 "**Licensed Territory**" means worldwide.

2.9 "**Net Sales**" means all gross revenue received by AKOYA, its Affiliates, or sublicensees, their distributors or designees, from the sale, transfer or other disposition of Licensed Product to an end user. Net Sales excludes the following items (but only as they pertain to the making, using, importing or selling of Licensed Products, are included in gross revenue, and are separately billed or accounted for):

(A) customary trade, quantity, or cash discounts and customary rebates and chargebacks;

(B) import, export, excise, value-added sales and other direct taxes, and custom duties, and other similar government charges;

(C) costs of insurance, packing, and transportation from the place of manufacture to the customer's premises or point of installation;

(D) costs of installation at the place of use; and

(E) credit for returns, allowances, or trades.

2.10 "**Nonroyalty Sublicensing Consideration**" means any consideration received by AKOYA from a sublicensee hereunder but excluding any consideration for:

(A) royalties on products sales (royalties on product sales by sublicensees will be treated as if AKOYA made the sale of such product). For clarity, no double payment will be made on such product sales;

(B) investments and debt securities of AKOYA;

(C) research and development expenses calculated on a fully burdened basis;

(D) debt;

(E) reimbursement of out-of-pocket patent prosecution and maintenance expenses for Patent Matters; and

(F) the sale of substantially all of the business or assets of AKOYA (or its assignee) to which this agreement relates, whether by merger, sale of stock or assets or otherwise.

2.11 "**Patent Matters**" means preparing, filing, and prosecuting, to the extent possible, broad and extensive patent claims (in light of any prior art and including any interference or reexamination actions) for Stanford's benefit in the Licensed Territory and for maintaining all Licensed Patents.

2.12 "**Stanford Indemnitees**" means Stanford and Stanford Hospitals and Clinics, and their respective trustees, officers, employees, students, agents, faculty, representatives, and volunteers.

2.13 "**Sublicense**" means any agreement between AKOYA and a non-Affiliate third party that contains a grant to Stanford's Licensed Patents regardless of the name given to the agreement by the parties; however, an agreement to make, have made, use or sell Licensed Products on behalf of AKOYA is not considered a Sublicense.

2.14 "**Valid Claim**" shall mean (i) a claim of a pending patent application that has not been abandoned or finally rejected without the possibility of appeal or re-filing, provided that if such pending claim does not issue as a valid and enforceable claim within seven (7) years from its earliest priority date, such pending claim will cease to be a Valid Claim unless and until actually issued or (ii) a claim of an issued, unexpired patent within the Licensed Patents which has not been dedicated to the public, disclaimed, abandoned or held invalid or unenforceable by a court or other government agency of competent jurisdiction in a decision from which no appeal can be taken or is otherwise not taken. For purposes of clarity, both (i) and (ii) are Valid Claims for purposes of this Agreement.

3. GRANT

3.1 **Grant**. Subject to the terms and conditions of this Agreement, Stanford grants AKOYA a license under the Licensed Patent in the Licensed Field of Use to make, have made, use, import, offer to sell, sell, and have sold Licensed Product in the Licensed Territory. AKOYA may exercise its rights under this Agreement through one or more of its Affiliates, provided that AKOYA shall be fully responsible for such Affiliate(s)' compliance with this Agreement.

3.2 **Exclusivity**. The license is Exclusive, including the right to grant any Sublicense under Article 4, in the Licensed Field of Use beginning on the Effective Date, and ending on the date of expiration last to expire of Licensed Patents.

3.3 **Retained Rights**. Stanford retains the right, on behalf of itself, Stanford Hospital and Clinics, and all other non-profit research institutions, to practice the Licensed Patent for any non-profit purpose, including sponsored research and collaborations. AKOYA agrees that, notwithstanding any other provision of this Agreement, it has no right to enforce the Licensed Patent against any such institution. Stanford and any such other institution have the right to publish any information included in a Licensed Patent.

3.4 **Specific Exclusion**. Stanford does not:

(A) grant to AKOYA any other licenses, implied or otherwise, to any patents or other rights of Stanford other than those rights granted under Licensed Patent, regardless of whether the patents or other rights are dominant or subordinate to any Licensed Patent, or are required to exploit any Licensed Patent;

(B) commit to AKOYA to bring suit against third parties for infringement, except as described in Article 14; and

(C) agree to furnish to AKOYA any technology or technological information or to provide AKOYA with any assistance except as set forth in Article 14.

4. SUBLICENSING

4.1 **Permitted Sublicensing**. AKOYA may grant Sublicenses in the Licensed Field of Use only during the Exclusive term and only if AKOYA is developing or selling Licensed Products. Sublicenses with any exclusivity must include diligence requirements commensurate with the diligence requirements of Appendix A. Stanford agrees that AKOYA may apportion without discrimination between AKOYA and Stanford patents a commercially reasonable percentage of sublicensing payments made to Stanford pursuant to Section 4.6, provided however that AKOYA provides Stanford with the proposed apportionment and justification prior to AKOYA's payment pursuant to Section 8.1. Stanford and AKOYA agree to meet to discuss such proposed apportionment if in Stanford's opinion the apportionment does not reasonably reflect the value of the Licensed Patents.

4.2 **Required Sublicensing**. If AKOYA is unable or unwilling to serve or develop a potential market or market territory and there is a reputable company willing to be a sublicensee and the Licensed Product that they are planning to develop would not be competitive with the current or foreseeable Licensed Products by AKOYA, as reasonably demonstrated by AKOYA in a written document to Stanford then AKOYA will, at Stanford's request, negotiate in good faith a Sublicense with any such potential sublicensee. Stanford would like licensees to address unmet needs, such as those of neglected patient populations or geographic areas, giving particular attention to improved therapeutics, diagnostics and agricultural technologies for the developing world.

4.3 **Sublicense Requirements**. Any Sublicense:

(A) is subject to this Agreement;

(B) will reflect that any sublicensee will not further sublicense;

(C) will prohibit sublicensee from paying royalties to an escrow or other similar account;

(D) will expressly include the provisions of Articles 8, 9, and 10 for the benefit of Stanford; and

(E) will include the provisions of Section 4.4 and require the transfer of all the sublicensee's obligations to AKOYA, including the payment of royalties specified in the Sublicense, to Stanford or its designee, if this Agreement is terminated provided that such sublicensee's payment obligation to Stanford shall be limited to the amount that Stanford would have otherwise been entitled to receive as a result of such sublicensee's activities if this Agreement had remained in effect. If the sublicensee is a spin-out from AKOYA, AKOYA must guarantee the sublicensee's performance with respect to the payment of Stanford's share of Sublicense royalties.

4.4 **Litigation by Sublicensee**. Any Sublicense must include the following clauses:

(A) In the event sublicensee brings an action seeking to invalidate any Licensed Patent:

(1) sublicensee will double the payment paid to AKOYA during the pendency of such action. Moreover, should the outcome of such action determine that any claim of a patent challenged by the sublicensee is both valid and infringed by a Licensed Product, sublicensee will pay triple times the payment paid under the original Sublicense;

(2) sublicensee will have no right to recoup any royalties paid before or during the period challenge;

(3) any dispute regarding the validity of any Licensed Patent shall be litigated in the courts located in Santa Clara County, and the parties agree not to challenge personal jurisdiction in that forum; and

(4) sublicensee shall not pay royalties into any escrow or other similar account.

(B) Sublicensee will provide written notice to Stanford at least three months prior to bringing an action seeking to invalidate a Licensed Patent. Sublicensee will include with such written notice an identification of all prior art it believes invalidates any claim of the Licensed Patent.

4.5 **Copy of Sublicenses and Sublicensee Royalty Reports**. AKOYA will submit to Stanford a copy of each Sublicense, any subsequent amendments and all copies of sublicensees' royalty reports (each of which may be reasonably redacted to exclude information not relevant to Akoya's obligations hereunder). Beginning with the first Sublicense, the Chief Financial Officer or equivalent will certify annually regarding the name and number of sublicensees.

4.6 **Sharing of Sublicensing Income**. During the term of this Agreement, AKOYA will pay to Stanford a portion of all Nonroyalty Sublicensing Consideration for the Sublicense of Licensed Patents, as provided below:

(A) [***]% if sublicensing occurs in 2015 or 2016;

(B) [***]% if sublicensed after Dec. 31, 2016 but prior to the introduction of a Licensed Product; and

(C) [***]% after the introduction of a Licensed Product.

4.7 **Royalty-Free Sublicenses**. If AKOYA pays all royalties due Stanford from a sublicensee's Net Sales, AKOYA may grant that sublicensee a royalty-free or non-cash:

(A) Sublicense or

(B) cross-license.

5. GOVERNMENT RIGHTS

This Agreement is subject to Title 35 Sections 200-204 of the United States Code. Among other things, these provisions provide the United States Government with nonexclusive rights in the Licensed Patent. They also impose the obligation that Licensed Product sold or produced in the United States be "manufactured substantially in the United States." AKOYA will ensure all obligations of these provisions are met.

6. DILIGENCE

6.1 **Milestones**. Because the invention is not yet commercially viable as of the Effective Date, AKOYA, itself or through its Affiliates and/or sublicensees, will use commercially reasonable efforts to develop, manufacture, and sell Licensed Product and will use commercially reasonable efforts to develop markets for Licensed Product. In addition, AKOYA will use commercially reasonable efforts to meet the milestones shown in Appendix A, and notify Stanford in writing as each milestone is met.

6.2 **Progress Report**. By March 1 of each year, AKOYA will submit a written annual report to Stanford covering the preceding calendar year. The report will include information sufficient to enable Stanford to satisfy reporting requirements of the U.S. Government and for Stanford to ascertain progress by AKOYA toward meeting this Agreement's diligence requirements. Each report will describe, where relevant: AKOYA's progress toward commercialization of Licensed Product, including a summary of work completed, key scientific discoveries, summary of work-in-progress, current schedule of anticipated events or milestones, market plans for introduction of Licensed Product, and significant corporate transactions involving Licensed Product. AKOYA will specifically describe how each Licensed Product is related to each Licensed Patent.

6.3 **Clinical Trial Notice**. AKOYA will notify the Stanford University Office of Technology Licensing prior to commencing any clinical trials at Stanford.

7. ROYALTIES

7.1 **Issue Royalty**. AKOYA will pay to Stanford a one-time, nonrefundable license issue royalty of $[***] upon signing this Agreement.

7.2 **Equity Interest**. As further consideration, AKOYA will grant to Stanford 213,333 shares of non-voting common stock (the "**Stanford Shares**") in AKOYA. When issued, the Stanford Shares will represent at least [***]% of the capitalization of the AKOYA on a Fully Diluted Basis. AKOYA represents that it will have raised $[***]in equity financing prior to the issuance of the Stanford Shares and the calculations of Fully Diluted Basis reflect all equity issued in such financing. AKOYA has provided Stanford with the capitalization table upon which the above calculation is made. AKOYA will issue [***]% of all such Stanford Shares ([***]Stanford Shares) granted to Stanford pursuant to this Section 7.2 directly to and in the name of the inventors listed below (the "**Inventors**") allocated as stated below:

Yury Goltsev – [***]Shares

Nikolay Samusik – [***]Shares

Garry Nolan – [***]Shares

7.3 **Anti-Dilution Protection**. AKOYA will issue Stanford and the Inventors, without further consideration, any additional shares of stock of the class issued pursuant to Section 7.2 necessary to ensure that the number of shares issued Stanford and the Inventors pursuant to Section 7.2 and this Section 7.3 does not represent less than 2% of the shares issued and outstanding on a Fully-Diluted Basis at any time through the completion of issuance of all shares to be issued in connection with the First Round of bona fide equity investment in AKOYA from a single or group of investors which is both (i) at least $2,500,000 in size and (ii) at a price per share which, when applied to stock actually outstanding immediately after such round, implies a post-financing equity valuation of AKOYA of at least $2,500,000. A "First Round" is a bona fide round of equity, warrant, option or convertible equity investment which includes all the tranches prior to the completion of the financing. This right will expire upon the issuance of all shares to be issued in connection with such First Round, but will apply to all shares to be issued in or in connection with such First Round.

In the event the AKOYA raises $1,200,000 shortly after formation of the company (which indicates a post-money valuation exceeding $2,500,000), then the obligation of AKOYA to issue Stanford and the Inventors additional Stanford Shares provided for in the immediately preceding paragraph shall be replaced with the obligation of the AKOYA to issue to Stanford and the Inventors, without further consideration, additional Stanford Shares necessary to ensure that the number of Stanford Shares issued to Stanford and the Inventors pursuant to Section 7.2 and this Section 7.3 does not represent less than 2% of the shares of AKOYA issued and outstanding on a Fully-Diluted Basis through the completion of an additional $1,300,000 ($2,500,000 total) of bona fide equity investment in AKOYA.

7.4 **Purchase Right**.

(A) Stanford shall have the right, but not the obligation, to purchase for cash up to its Share of the securities issued in any Qualifying Offering on the terms, and subject to the conditions, set forth in this Section 7.4 and Section 7.5 (the "Purchase Right"). For purposes of this Section 7.4 and Section 7.5:

(1) "Adjustment Event" means the final closing of the first Threshold Qualifying Offering occurring after the date of this Agreement.

(2) "Board of Directors" means (i) if AKOYA is organized as a corporation, its board of directors, and (ii) if AKOYA is organized as a limited liability company, AKOYA manager(s) or member(s) or both that have the power to direct the principal management and activities of AKOYA, whether through ownership of voting securities, by agreement, or otherwise.

(3) "Qualifying Offering" means a private offering of AKOYA's equity securities (or securities convertible into or exercisable for AKOYA's equity securities) for cash (or in satisfaction of debt issued for cash) having its final closing on or after the date of this Agreement and which includes investment by one or more venture capital, professional angel, corporate or other similar institutional investors other than Stanford. For the avoidance of doubt, if AKOYA is a limited liability company, then "equity securities" means limited liability company interests in AKOYA.

(4) "Share" means:

(i) 10% with respect to any Qualifying Offering having a closing on or before the date of an Adjustment Event; or

(ii) with respect to any Qualifying Offering having a closing after an Adjustment Event, but before a Termination Event, the percentage necessary for Stanford to maintain its pro rata ownership interest in AKOYA on a Fully-Diluted Basis.

(5) "Threshold Qualifying Offering" means any Qualifying Offering which either (i) is at least $2,500,000 in size or (ii) involves the sale to outside investors of at least 25% of the equity securities outstanding after such round on a Fully-Diluted Basis.

(6) The parties shall construe the term "Fully-Diluted Basis" mutatis mutandis in the case where AKOYA is organized as a limited liability company.

(B) The Purchase Right shall terminate upon the earliest to occur of the following (each a "Termination Event"):

(1) Stanford's execution of an investor rights agreement or similar agreement (each a "Rights Agreement") in connection with a Threshold Qualifying Offering so long the Rights Agreement satisfies the terms of this Section 7.4 and Section 7.5 below;

(2) Stanford purchases less than its entire Share of a Qualifying Offering;

(3) Stanford fails to give an election notice within the Notice Period for a Qualifying Offering which has its final closing within 90 days of the date such notice is received by Stanford and which is closed on terms that are the same or less favorable to the investors as the terms stated in AKOYA's notice to Stanford;

(4) The closing of a firm commitment underwritten public offering of AKOYA's common stock;

The closing of the sale of all or substantially all of AKOYA's assets to a company publicly traded on one of the major recognized exchanges.

(C) The Purchase Right shall not apply to the issuance of securities: (i) to employees, individuals who are members of AKOYA's Board of Directors as of the time of issuance, and service providers to AKOYA pursuant to a plan approved by AKOYA's Board of Directors; or (ii) as additional consideration in lending or leasing transactions; or (iii) to an entity pursuant to an arrangement that AKOYA's Board of Directors determines in good faith is a strategic partnership or similar arrangement of AKOYA (i.e., an arrangement in which the entity's purchase of securities is not primarily for the purpose of financing AKOYA); or (iv) to owners of another entity in connection with the acquisition of that entity by AKOYA.

(D) For the avoidance of doubt: (i) any securities Stanford may acquire or have the right to acquire under Section 7.2 or 7.3 shall not reduce the number of securities Stanford may purchase under this Section 7.4 or under any applicable Rights Agreement; and (ii) Stanford shall not be obligated to purchase under this Section 7.4 any AKOYA securities it has the right to acquire under Section 7.2 or 7.3 above.

7.5 **Rights Agreements; Information Rights; Notice; Elections**.

(A) AKOYA shall ensure that each Rights Agreement executed by Stanford in connection with a Qualifying Offering will grant to Stanford the same rights as all other investors who are parties to that Rights Agreement. In particular, AKOYA shall ensure that each such Rights Agreement will grant to Stanford the same right to purchase additional securities in future offerings, the same information rights, and the same registration rights as are granted to other parties thereto, including all such rights granted to any investor designated as a "Major Investor" or other similar designation, even if Stanford is not so designated.

(B) Notwithstanding any terms to the contrary contained in any applicable Rights Agreement:

(1) Stanford shall not have any representation on the Board of Directors or rights to attend meetings of the Board of Directors;

(2) In connection with all Qualifying Offerings, AKOYA shall give Stanford notice of the terms of the offering, including: (i) the names of the investors, the allocation of equity securities among them and the total amounts to be invested by each of them in such offering; (ii) pre- and post- (projected) financing capitalization table; (iii) investor presentation (if available); (iv) an introduction to the lead investor in such offering for the purpose of discussing the lead investor's due diligence process; and (v) such other documents and information as Stanford may reasonably request for the purpose of making an investment decision or verifying the amount of equity securities it is entitled to purchase in such offering; and

(3) Stanford may elect to exercise its Purchase Right, in whole or in part, by notice given to AKOYA within 15 Stanford business days (i.e., days other than Saturdays, Sundays, and holidays or other days on which Stanford is officially closed) after receipt of AKOYA's notice ("Notice Period").

(C) If Stanford has no information rights under a Rights Agreement and to the extent that such information has been prepared by AKOYA for other purposes, so long as Stanford holds AKOYA securities, AKOYA shall furnish to Stanford, upon request and as promptly as reasonably practicable, AKOYA's annual consolidated financial statements and annual operating plan, including an annual report of the holders of AKOYA's securities, and such other information as Stanford may reasonably request from time to time for the purpose of valuing its interest in AKOYA.

Notwithstanding any notice provision in this Agreement to the contrary, any notice given under this Agreement that refers or relates to any of Section 7.4 above or this Section 7.5 shall be copied concurrently to pvfnotices@stanford.edu; provided, however, that delivery of the copy will not by itself constitute notice for any purpose under this Agreement.

7.6 **License Maintenance Fee**. Beginning on the first anniversary of the Effective Date, and each anniversary thereafter, AKOYA will pay Stanford yearly license maintenance fees as follows:

(A) $15,000 each Effective Date anniversary until first sale of a Licensed Product instrument; and

(B) $30,000 each Effective Date anniversary thereafter;

Yearly maintenance payments are nonrefundable, but they are creditable each year as described in Section 7.12.

7.7 **Milestone Payments**. AKOYA will pay Stanford the following one-time milestone payments:

(A) $[***]upon first to issue of Licensed Patent; and

(B) $[***]upon sale of more than $[***] of Licensed Product instruments in a calendar year.

7.8 **Earned Royalty**. AKOYA will pay Stanford earned royalties of 2.25% on Net Sales of Licensed Products. It is understood that only one Earned Royalty shall be paid with respect to each unit of Licensed Product sold, without regard to whether more than one Valid Claim within the Licensed Patents is applicable to such unit.

7.9 **Combination Product**. In the event that a Licensed Product is sold in combination with another product, or component for which no royalty would be due hereunder if sold separately, Net Sales from such combination sales for purposes of calculating the amounts due under this Article 7 shall be calculated by multiplying the Net Sales of the combination product by the fraction A/(A + B), where A is the average gross selling price during the applicable calendar quarter of the Licensed Product sold separately and B is the average gross selling price during the applicable calendar quarter of the other product(s), or component(s). In the event that separate sales of the Licensed Product and/or of the other product(s) or component(s) were not made during the applicable calendar quarter, then the Net Sales on the combination product shall be as reasonably and mutually agreed upon by Stanford and AKOYA in good faith, between such Licensed Product and such other product or components, based upon their relative importance and proprietary protection.

7.10 **Single Royalty**. No more than one royalty payment under this Agreement shall be due to Stanford with respect to a sale of a particular Licensed Product. Multiple royalties shall not be payable because any Licensed Product, or its manufacture, sale or use, is covered by more than one claim within the Licensed Patents. No royalty shall be payable hereunder with respect to sales of Licensed Products provided as samples for promotional use and provided free or at cost or for research and/or development activities for the Licensed Products and provided at cost, provided that Akoya does not derive any additional consideration (eg. cash or otherwise) from these sales.

7.11 **Earned Royalty if AKOYA Challenges the Patent**. Notwithstanding the above, should AKOYA initiate an action seeking to invalidate any Licensed Patent, AKOYA will pay royalties to Stanford at the rate of [***]([***]%) of the Net Sales of all Licensed Products sold by AKOYA that would infringe such Licensed Patent sold during the pendency of such action. Moreover, should the outcome of such action determine that any claim of a patent challenged by AKOYA is both valid and infringed by a Licensed Product, AKOYA will pay royalties at the rate of [***]([***]%) of the Net Sales of all Licensed Products that would infringe such Licensed Patent sold.

7.12 **Creditable Payments**. The license maintenance fee for a year may be offset against earned royalty payments due on Net Sales occurring in that year.

For example:

(A) if AKOYA pays Stanford a $10 maintenance payment for year Y, and according to Section 7.8 $15 in earned royalties are due Stanford for Net Sales in year Y, AKOYA will only need to pay Stanford an additional $5 for that year's earned royalties.

(B) if AKOYA pays Stanford a $10 maintenance payment for year Y, and according to Section 7.8 $3 in earned royalties are due Stanford for Net Sales in year Y, AKOYA will not need to pay Stanford any earned royalty payment for that year. AKOYA will not be able to offset the remaining $7 against a future year's earned royalties.

7.13 **Obligation to Pay Royalties**. During the term of this Agreement, an earned royalty is due Stanford under this Agreement on a country-by-country basis until the expiration of the last Valid Claim within the Licensed Patents in the country of manufacture, use, import or sale covering such Licensed Product. Nonetheless, if certain Licensed Products are made, used, imported, or offered for sale before the date this Agreement terminates, and those Licensed Products are sold after the termination date, AKOYA will pay Stanford an earned royalty for its exercise of rights based on the Net Sales of those Licensed Products.

7.14 **No Escrow**. AKOYA shall not pay royalties into any escrow or other similar account.

7.15 **Currency**. AKOYA will calculate the royalty on sales in currencies other than U.S, Dollars using the appropriate foreign exchange rate for the currency quoted by the Wall Street Journal on the close of business on the last banking day of each calendar quarter. AKOYA will make royalty payments to Stanford in U.S. Dollars.

7.16 **Non-U.S. Taxes**. AKOYA will pay all non-U.S, taxes related to royalty payments. These payments are not deductible from any payments due to Stanford.

7.17 **Interest**. Any payments not made when due will bear interest at the lower of (a) the Prime Rate published in the Wall Street Journal plus 200 basis points or (b) the maximum rate permitted by law.

8. ROYALTY REPORTS, PAYMENTS, AND ACCOUNTING

8.1 **Quarterly Earned Royalty Payment and Report**. Beginning with the first commercial sale of a Licensed Product by AKOYA or a sublicensee, AKOYA will submit to Stanford a written report (even if there are no sales) and an earned royalty payment within 60 days after the end of each calendar quarter. This report will be in the form of Appendix B and will state the number, description, and aggregate Net Sales of Licensed Product during the completed calendar quarter. The report will include an overview of the process and documents relied upon to permit Stanford to understand how the earned royalties are calculated. With each report AKOYA will include any earned royalty payment due Stanford for the completed calendar quarter (as calculated under Section 7.8).

8.2 **No Refund**. In the event that a validity or non-infringement challenge of a Licensed Patent brought by AKOYA is successful, AKOYA will have no right to recoup any royalties paid before or during the period of challenge.

8.3 **Termination Report**. AKOYA will pay to Stanford all applicable unpaid royalties accrued as of the date of termination and submit to Stanford a written report within 90 days after the license terminates. AKOYA will continue to submit earned royalty payments and reports to Stanford after the license terminates, until all Licensed Products made or imported under the license have been sold.

8.4 **Accounting**. AKOYA will maintain records showing manufacture, importation, sale, and use of a Licensed Product for 7 years from the date of sale of that Licensed Product. Records will include general-ledger records showing cash receipts and expenses, and records that include: production records, customers, invoices, serial numbers, and related information in sufficient detail to enable Stanford to determine the royalties payable under this Agreement.

8.5 **Audit by Stanford**. Upon reasonable advance notice and during normal business hours, AKOYA will allow Stanford or its designee to examine AKOYA's records kept in accordance with Section 8.4 solely to verify payments made by AKOYA under this Agreement.

8.6 **Paying for Audit**. Stanford will pay for any audit done under Section 8.5. But if the audit reveals an underreporting of earned royalties due Stanford of 5% or more for the period being audited, AKOYA will pay the out-of-pocket audit costs reasonably incurred by Stanford.

8.7 **Self-audit.** AKOYA will conduct an independent audit of sales and royalties at least every 2 years if annual Net Sales of Licensed Product are over $5,000,000. The audit will address, at a minimum, the amount of gross sales by or on behalf of AKOYA during the audit period, the amount of funds owed to Stanford under this Agreement, and whether the amount owed has been paid to Stanford and is reflected in the records of AKOYA. AKOYA will submit the auditor's report promptly to Stanford upon completion. AKOYA will pay for the entire cost of the audit.

9. EXCLUSIONS AND NEGATION OF WARRANTIES

9.1 **Negation of Warranties**. Except as expressly provided herein, Stanford provides AKOYA the rights granted in this Agreement AS IS and WITH ALL FAULTS. Stanford makes no representations and extends no warranties of any kind, either express or implied. Among other things, Stanford disclaims any express or implied warranty:

(A) of merchantability, of fitness for a particular purpose;

(B) of non-infringement; or

(C) arising out of any course of dealing.

9.2 **No Representation of Licensed Patent**. AKOYA also acknowledges that Stanford does not represent or warrant:

(A) the validity or scope of any Licensed Patent; or

(B) that the exploitation of any Licensed Patent will be successful.

10. INDEMNITY

10.1 **Indemnification**. AKOYA will indemnify, hold harmless, and defend all Stanford Indemnitees against any claim of any kind brought by a third party against any Stanford Indemnitee to the extent it arises out of the exercise of any rights granted AKOYA under this Agreement or the breach of this Agreement by AKOYA provided that provided that Stanford provides to AKOYA: (i) prompt written notice of any claim it wishes to claim indemnification hereunder, (ii) the right to control the defense and settlement of such claim, provided that AKOYA must do so in a manner that does not adversely affect Stanford's interests and it must obtain Stanford's prior consent to any settlement and (iii) all necessary information reasonably at Stanford's disposal and reasonable assistance in connection with the defense and settlement of such claim.

10.2 **No Indirect Liability**. Neither party shall be liable for any special, consequential, lost profit, expectation, punitive or other indirect damages in connection with any claim arising out of or related to this Agreement, whether grounded in tort (including negligence), strict liability, contract, or otherwise.

10.3 **Workers' Compensation**. AKOYA will comply with all statutory workers' compensation and employers' liability requirements for activities performed under this Agreement.

10.4 **Insurance**. Within 60 days of the Effective Date and thereafter during the remaining term of this Agreement, AKOYA will maintain Comprehensive General Liability Insurance, including Product Liability Insurance, with a reputable and financially secure insurance carrier to cover the activities of AKOYA and its sublicensees. As long as Licensed Product is not used in humans, the insurance will provide minimum limits of liability of $3,000,000 and will include all Stanford Indemnitees as additional insureds. If Licensed Product is used in humans, AKOYA agrees that the insurance will provide minimum limits of liability of $5,000,000. Insurance must cover claims incurred, discovered, manifested, or made during or after the expiration of this Agreement and must be placed with carriers with ratings of at least A- as rated by A.M. Best. Within 60 days of the Effective Date of this Agreement, AKOYA will furnish a Certificate of Insurance evidencing primary coverage and additional insured requirements. AKOYA will provide to Stanford 30 days prior written notice of cancellation or material change to this insurance coverage. AKOYA will advise Stanford in writing that it maintains excess liability coverage (following form) over primary insurance for at least the minimum limits set forth above. All insurance of AKOYA will be primary coverage; insurance of Stanford Indemnitees will be excess and noncontributory.

11. EXPORT

AKOYA and its Affiliates and sublicensees shall comply with all United States laws and regulations controlling the export of licensed commodities and technical data. (For the purpose of this paragraph, "licensed commodities" means any article, material or supply but does not include information; and "technical data" means tangible or intangible technical information that is subject to U.S. export regulations, including blueprints, plans, diagrams, models, formulae, tables, engineering designs and specifications, manuals and instructions.) These laws and regulations may include, but are not limited to, the Export Administration Regulations (15 CFR 730-774), the International Traffic in Arms Regulations (22 CFR 120-130) and the various economic sanctions regulations administered by the U.S. Department of the Treasury (31 CFR 500-600).

Among other things, these laws and regulations prohibit or require a license for the export or retransfer of certain commodities and technical data to specified countries, entities and persons. AKOYA hereby gives written assurance that it will comply with, and will cause its Affiliates and sublicensees to comply with all United States export control laws and regulations, that it bears sole responsibility for any violation of such laws and regulations by itself or its Affiliates or sublicensees, and that it will indemnify, defend and hold Stanford harmless for the consequences of any such violation subject to conditions set forth in Section 10.1.

12. MARKING

As required by law, before any Licensed Patent issues, AKOYA will mark Licensed Product with the words "Patent Pending." Otherwise, as required by law, AKOYA will mark Licensed Product with the number of any issued Licensed Patent.

13. STANFORD NAMES AND MARKS

AKOYA will not use (i) Stanford's name or other trademarks, (ii) the name or trademarks of any organization related to Stanford, or (iii) the name of any Stanford faculty member, employee, student or volunteer without the prior written consent of Stanford. Permission may be withheld at Stanford's sole discretion. This prohibition includes, but is not limited to, use in press releases, advertising, marketing materials, other promotional materials, presentations, case studies, reports, websites, application or software interfaces, and other electronic media. Notwithstanding the foregoing, AKOYA can use Stanford's name or names of Stanford employees in statements of fact (provided such statements do not imply endorsement of AKOYA's products or services) in legal proceedings, patent filings, and regulatory filings and in private discussions with potential private investors or third party collaboration partners.

14. PROSECUTION AND PROTECTION OF PATENTS

14.1 **Patent Prosecution**.

(A) Following the Effective Date and subject to Stanford's approval, AKOYA will be responsible for Patent Matters. AKOYA will use its best efforts, considering any prior art, with respect to the Patent Matters and in doing so will act in good faith irrespective of other patents, patent applications, or other rights that AKOYA may possess. AKOYA will: (i) keep Stanford informed as to the filing, prosecution and maintenance of such patent applications and patents, (ii) furnish to Stanford copies of material documents relevant to any such filing, prosecution and maintenance; and (iii) before taking any substantive actions in prosecuting the claims, will provide to Stanford final approval on how to proceed with any such actions. To aid AKOYA in this process, Stanford will provide information, execute and deliver documents and do other acts as AKOYA shall reasonably request from time to time. If Stanford at any time believes that AKOYA has failed to satisfy the standards of this Section 14.1(A), it may, upon 30 days' notice, terminate this Section 14.1(A).

(B) AKOYA will reimburse Stanford for Stanford's reasonable costs incurred in complying with such requests. Stanford and AKOYA agree that Stanford is the client of record for the attorney prosecuting the Licensed Patents and agree to have Appendix C fully executed by the appropriate parties upon execution of this Agreement. At Stanford's reasonable request, AKOYA will provide all information and assistance to Stanford to ensure that Licensed Patent is as extensive as reasonable considering any prior art. If Stanford has terminated Section 14.1(A), any agreement in the form of Appendix C will be deemed to be amended immediately without prior action by any party to revise Appendix C, Section 1 to require the Firm (as defined in Appendix C) to interact directly with Stanford only.

14.2 **Infringement Procedure**. Each Party will promptly notify the other if it believes a third party infringes a Licensed Patent or if a third party files a declaratory judgment action with respect to any Licensed Patent. During the Exclusive term of this Agreement and if AKOYA is developing Licensed Product, AKOYA may have the right to institute a suit against or defend any declaratory judgment action initiated by this third party as provided in Section 14.3 through and including Section 14.7.

14.3 **AKOYA Suit**. AKOYA, itself or through a designee, has the first right to institute suit, so long as it conforms with the requirements of this Section 14.3 and AKOYA or its sublicensee is researching, developing, manufacturing or selling Licensed Product. If AKOYA decides to institute suit, it will notify Stanford in writing and give Stanford the opportunity to institute suit jointly as provided in Section 14.4. AKOYA will use commercially reasonable efforts to pursue the suit and AKOYA will bear the entire cost of the litigation, including expenses and counsel fees incurred by Stanford if Stanford is named as a party pursuant to this Section 14.3 (but not if Stanford otherwise elects to retain counsel to monitor the suit). AKOYA will keep Stanford reasonably apprised of all developments in the suit, and will seek Stanford's input and approval on any substantive submissions or positions taken in the litigation regarding the scope, validity and enforceability of the Licensed Patent. AKOYA will not prosecute, settle or otherwise compromise any such suit in a manner that adversely affects Stanford's interests without Stanford's prior written consent. Stanford may be named as a party only if:

(A) AKOYA's and Stanford's respective counsel recommends that such action is necessary in their reasonable opinion to achieve standing or a court has required or will require such joinder to pursue the action;

(B) Stanford is not the first named party in the action; and

(C) the pleadings and any public statements about the action state that AKOYA is pursuing the action and that AKOYA has the right to join Stanford as a party.

14.4 **Joint Suit**. If Stanford and AKOYA so agree, they may institute suit or defend the declaratory judgment action jointly. If so, they will:

(A) prosecute the suit in both their names;

(B) bear the out-of-pocket costs equally;

(C) share any recovery or settlement equally; and

(D) agree how they will exercise control over the action.

14.5 **Stanford Suit**. If neither Section 14.3 nor 14.4 apply, Stanford may institute and prosecute a suit or defend any declaratory judgment action so long as it conforms with the requirements of this Section 14.5. Stanford may name AKOYA as a party for standing purposes. If Stanford decides to institute suit, it will notify AKOYA in writing and give AKOYA the opportunity to institute suit jointly as provided in Section 14.4. If AKOYA does not notify Stanford in writing that it desires to jointly prosecute the suit within forty-five (45) days after the date of Stanford's notice to AKOYA, AKOYA will assign and hereby does assign to Stanford all rights, causes of action, and damages resulting from the alleged infringement. Stanford will bear the entire cost of the litigation and will retain the entire amount of any recovery or settlement.

14.6 **Recovery**. If AKOYA sues under Section 14.4, then any recovery in excess of any unrecovered litigation costs and fees will be shared with Stanford as follows:

(A) any payment for past sales will be deemed Net Sales, and AKOYA will pay Stanford royalties at the rates specified in Section 7.8;

(B) any payment for future sales will be deemed a payment under a Sublicense, and royalties will be shared as specified in Article 4; and

(C) AKOYA and Stanford will negotiate in good faith appropriate compensation to Stanford for any non-cash settlement or non-cash cross-license.

14.7 **Abandonment of Suit**. If either Stanford or AKOYA commences a suit and then wants to abandon the suit, it will give timely notice to the other party. The other party may continue prosecution of the suit after Stanford and AKOYA agree on the sharing of expenses and any recovery in the suit.

15. TERM AND TERMINATION

15.1 **Term**. This Agreement shall be effective as of the Effective Date and will continue, unless earlier terminated in accordance with this Agreement, until the expiration, revocation or invalidation of the last to expire patent or the abandonment of the last patent application within the Licensed Patents, whichever comes later.

15.2 **Termination by AKOYA**. AKOYA may terminate this Agreement by giving Stanford written notice at least 30 days in advance of the effective date of termination selected by AKOYA. AKOYA may terminate this Agreement as to any particular patent application or patent within the Licensed Patents by giving Stanford written notice at least 30 days in advance of the effective date of termination selected by AKOYA. From and after the effective date of a termination under this subsection 15.2 with respect to a particular patent application or patent, such patent application or patent in the particular country shall cease to be within the Licensed Patents for purposes of this Agreement.

15.3 **Termination by Stanford**.

(A) Stanford may terminate this Agreement on 30 days written notice if AKOYA:

(1) is in material default in payment of amounts due hereunder or providing associated reports;

(2) is not using commercially reasonable efforts to develop and commercialize Licensed Products;

(3) misses a milestone described in Appendix A;

(4) is in breach of any material provision; or

(5) provides any materially false report.

(B) Termination under this Section 15.3 will take effect 30 days after written notice by Stanford specifying the nature of the default or breach unless AKOYA remedies the specified default or breach in that 30-day period. Notwithstanding the foregoing, if AKOYA disputes any such default or breach related to payment in writing within such 30-day period, Stanford shall not have the right to terminate this Agreement unless and until the arbitrator determines in a written decision delivered to the parties under Section 17 below, that such default or breach occurred, and AKOYA fails to cure such default or breach within 30 days after such determination.

15.4 **Surviving Provisions**. Surviving any termination or expiration are:

(A) AKOYA's obligation to pay royalties accrued or accruable;

(B) any claim of AKOYA or Stanford, accrued or to accrue, because of any breach or default by the other party;

(C) the provisions of Articles and sections 8, 9, 10, 15.4, 17, 19 and 20.

16. CHANGE OF CONTROL AND NON-ASSIGNABILITY

16.1 **Change of Control**. If there is a Change of Control, AKOYA will pay Stanford $[***]if AKOYA is valued between (and including) $[***]and $[***]or $[***]if AKOYA is valued at more than $[***](“Change of Control Fee”).

16.2 **Conditions of Assignment under Change of Control**. AKOYA may assign this Agreement as part of a Change of Control upon prior and complete performance of the following conditions:

(A) AKOYA must give Stanford 15 days prior written notice of the assignment, including the new assignee’s contact information; and

(B) the new assignee must agree in writing to Stanford to be bound by this Agreement; and

(C) Stanford must have received the full Change of Control Fee.

16.3 **After the Assignment**. Upon a permitted assignment of this Agreement pursuant to Article 16, AKOYA will be released of liability under this Agreement and the term “AKOYA” in this Agreement will mean the assignee.

16.4 **Bankruptcy**. In the event of a bankruptcy or insolvency, assignment is permitted only to a party that can provide adequate assurance of future performance, including commercially reasonable efforts for development and sales of Licensed Product.

16.5 **Nonassignability of Agreement**. Except in conformity with this Article 16, this Agreement is not assignable by AKOYA under any other circumstances and any attempt to assign this Agreement by AKOYA is null and void.

17. DISPUTE RESOLUTION

17.1 **Dispute Resolution by Arbitration**. Any dispute between the parties regarding any payments made or due under this Agreement, will be settled by arbitration in accordance with the JAMS Arbitration Rules and Procedures then in effect (“JAMS Rules”). The parties are not obligated to settle any other dispute that may arise under this Agreement by arbitration.

17.2 **Request for Arbitration**. Either party may request such arbitration. Stanford and AKOYA will mutually agree in writing on a third party arbitrator within 30 days of the arbitration request, provided that if the parties are unable to agree on a third party arbitrator within such 30 days period, the arbitrator shall be selected according to the JAMS Rules, The arbitrator’s decision will be final and nonappealable and may be entered in any court having jurisdiction.

17.3 **Discovery**. The parties will be entitled to discovery as if the arbitration were a civil suit in the California Superior Court. The arbitrator may limit the scope, time, and issues involved in discovery in accordance with the JAMS Rules.

17.4 **Place of Arbitration**. The arbitration will be held in Stanford, California unless the parties mutually agree in writing to another place.

17.5 **Patent Validity**. Any dispute regarding the validity of any Licensed Patent shall be litigated in the courts located in Santa Clara County, California, and the parties agree not to challenge personal jurisdiction in that forum.

18. NOTICES

18.1 **Legal Action**. AKOYA will provide written notice to Stanford at least three months prior to bringing an action seeking to invalidate any Licensed Patent or a declaration of non-infringement. AKOYA will include with such written notice an identification of all prior art it believes invalidates any claim of the Licensed Patent.

18.2 **All Notices**. All notices under this Agreement are deemed fully given when written, addressed, and sent as follows:

All general notices to AKOYA are mailed or emailed to:

Deval Lashkari
360 Post Street, Suite 601
San Francisco, CA 94108
dal@thpartners.net

With cc to (which shall not constitute notice):
WSGR
c/o Vern Norviel
650 Page Mill Road
Palo Alto, CA 94304-1050
Phone 650.493.9300
Fax 650.493.6811

All financial invoices to AKOYA (i.e., accounting contact) are e-mailed to:

Rob Hart
360 Post Street, Suite 601
San Francisco, CA 94108
rch@thpartners.net

All progress report invoices to AKOYA (i.e., technical contact) are e-mailed to:

Deval Lashkari
360 Post Street, Suite 601
San Francisco, CA 94108
dal@thpartners.net

All general notices to Stanford are e-mailed or mailed to:

Office of Technology Licensing
3000 El Camino Real
Building 5, Suite 300
Palo Alto, CA 94306-2100
info@otlmail.stanford.edu

All payments to Stanford are mailed to:

Stanford University
Office of Technology Licensing
Department #44439
P.O. Box 44000
San Francisco, CA 94144-4439

All progress reports to Stanford are e-mailed or mailed to:

Office of Technology Licensing
3000 El Camino Real
Building 5, Suite 300
Palo Alto, CA 94306-2100
info@otlmail.stanford.edu

Any notice related to Section 7.4 or Section 7.5 (Stanford Purchase Rights) shall be copied concurrently to pvinoticesastanford.edu.

Either party may change its address with written notice to the other party.

19. CONFIDENTIALITY

19.1 STANFORD shall maintain the reports and any information provided by AKOYA to STANFORD pursuant to Sections 4.5, 6.2, 8.1, 8.3, 8.5 and 8.7 in confidence and not disclose such information or reports to any third party, except as required by law, STANFORD's obligation of confidentiality hereunder shall be fulfilled by using at least the same degree of care with AKOYA confidential information as it uses to protect Stanford's other confidential information.

20. MISCELLANEOUS

20.1 **Waiver**. No term of this Agreement can be waived except by the written consent of the party waiving compliance.

20.2 **Choice of Law**. This Agreement and any dispute arising under it is governed by the laws of the State of California, United States of America, applicable to agreements negotiated, executed, and performed within California.

20.3 **Entire Agreement**. The parties have read this Agreement and agree to be bound by its terms, and further agree that it constitutes the complete and entire agreement of the parties and supersedes all previous communications, oral or written, and all other communications between them relating to the license and to the subject hereof. This Agreement may not be amended except by writing executed by authorized representatives of both parties. No representations or statements of any kind made by either party, which are not expressly stated herein, will be binding on such party.

20.4 **Exclusive Forum**. The state and federal courts having jurisdiction over Stanford, California, United States of America, provide the exclusive forum for any court action between the parties relating to this Agreement. AKOYA submits to the jurisdiction of such courts, and waives any claim that such a court lacks jurisdiction over AKOYA or constitutes an inconvenient or improper forum.

20.5 **Headings**. No headings in this Agreement affect its interpretation.

20.6 **Electronic Cop**y. The parties to this document agree that a copy of the original signature (including an electronic copy) may be used for any and all purposes for which the original signature may have been used. The parties further waive any right to challenge the admissibility or authenticity of this document in a court of law based solely on the absence of an original signature.

20.7 **Severability**. In the event that any provision of this Agreement is determined to be illegal, invalid or unenforceable by a court of competent jurisdiction, the remainder of the Agreement shall continue in full force and effect without said provision. The parties shall in good faith negotiate a valid substitute clause for any provision declared to be illegal, invalid or unenforceable, which clause shall, in its economic effect, be sufficiently similar to the illegal, invalid or unenforceable provision that it can reasonably be determined that the parties would have entered into this Agreement with such clause.

The parties execute this Agreement in duplicate originals by their duly authorized officers or representatives.

THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY

Signature:	/s/ Katharine Ku
Name:	Katharine Ku
Title:	Executive Director, Technology Licensing
Date:	November 19, 2015

AKOYA BIOSCIENCES, INC.

Signature:	/s/ Deval Lashkari
Name:	Deval Lashkari
Title:	Chief Executive Officer
Date:	November 17, 2015

Appendix A – Milestones

Milestone	Date
1. Hire executive to be responsible for product development	60 days after Effective Date
2. Develop working prototype	Q4 2016
3. Place beta instrument in academic laboratory	Q1 2018
4. Hire sales executive	Ql 2019
5. First commercial sale of Licensed Product instrument	Q3 2019
6. Secure distributor for European market	Q3 2019
7. First commercial sale of Licensed Product instrument to clinical diagnostics lab	Q1 2020
8. Establish laboratory to offer commercial access to technology via service offering	Q1 2021
9. Achieve at least $[***]of cumulative revenue	FYE 2023

Should AKOYA fail to meet any of the above milestones, AKOYA and Stanford agree to meet to negotiate commercially reasonable modifications to such milestone.

Appendix B – Sample Reporting Form

Stanford Docket No. S14-157

This report is provided pursuant to the license agreement between Stanford University and AKOYA

License Agreement Effective Date:

Name(s) of Licensed Products being reported:

Report Covering Period	
Yearly Maintenance Fee	$
Number of Sublicenses Executed	
Gross Revenue	
U.S. Gross Revenue	$
Non-U.S. Gross Revenue	$
Net Sales	
U.S. Net Sales	$
Non-U.S. Net Sales	$
Royalty Calculation	
Royalty Subtotal	$
Credit	$
Royalty Due	$

Comments:

Appendix C – Client and Billing Agreement

The Board of Trustees of the Leland Stanford Junior University ("STANFORD"); and Akoya Biosciences, Inc. a Corporation of the State of Delaware, with a principal place of business at 360 Post Street, Suite 601, San Francisco, CA, ("AKOYA"); have agreed to use the law firm of _____ ("FIRM") to prepare, file and prosecute the pending patent applications listed in Exhibit A attached hereto and maintain the patents that issue thereon ("Patents").

WHEREAS, FIRM desires to perform the legal services related to obtaining and maintaining the Patents;

WHEREAS, STANFORD remains the client of the FIRM; and

WHEREAS, AKOYA is the licensee of STANFORD's interest in the Patents;

NOW THEREFORE, in consideration of the premises and the faithful performance of the covenants herein contained, IT IS AGREED:

1. FIRM can interact directly with AKOYA on all patent prosecution matters related to the Patents and will copy STANFORD on all correspondence. STANFORD will be notified by FIRM prior to any substantive actions and will have final approval on proceeding with such actions. In addition, as prosecution proceeds, FIRM will notify STANFORD if there is any change in inventorship from the originally filed application.

2. AKOYA is responsible for the payment of all charges and fees by FIRM related to the prosecution and maintenance of the Patents. FIRM will invoice AKOYA and AKOYA must pay FIRM directly for all charges. If STANFORD requests, STANFORD will be copied on all invoices and payments. FIRM must inform STANFORD within 90 days if the licensee is delinquent on payment. Otherwise, STANFORD will not be responsible for those expenses.

3. Notices and copies of all correspondence should be sent to the following:

To AKOYA:

Deval Lashkari
360 Post Street, Suite 601
San Francisco, CA 94108
dal@thpartners.net

To STANFORD:

Name
Office of Technology Licensing
Stanford University
3000 El Camino Real
Building 5, Suite 300
Palo Alto, CA 94306-2100

To FIRM:

4. The parties to this document agree that a copy of the original signature (including an electronic copy) may be used for any and all purposes for which the original signature may have been used. The parties further waive any right to challenge the admissibility or authenticity of this document in a court of law based solely on the absence of an original signature.

ACCEPTED AND AGREED TO:

STANFORD

By: _____

Name: Katharine Ku

Title: Director

Date: _____

AKOYA Biosciences, LLC

By: _____

Name:

Title:

Date:

[FIRM]

By: _____

Name:

Title:

Date: _____

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

AMENDMENT No 1

TO THE

LICENSE AGREEMENT EFFECTIVE THE 17TH DAY OF NOVEMBER 2015

BETWEEN

STANFORD UNIVERSITY

AND

AKOYA BIOSCIENCES

Effective the 18th day of November, 2016, THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY ("Stanford"), an institution of higher education having powers under the laws of the State of California, and Akoya Biosciences, Inc. ("AKOYA"), a corporation having a principal place of business at 360 Post Street, Suite 601, San Francisco, CA, agree as follows:

1. BACKGROUND

Stanford and AKOYA are parties to a License Agreement effective the 17th day of November, 2015 ("Original Agreement") covering "Slide-based antibody detection with oligos" disclosed in Stanford docket S14-157, from the laboratory of Dr. Garry Nolan.

Stanford and AKOYA wish to amend the Original Agreement to add a new patent application disclosed in Stanford docket S16-116 titled "Highly-multiplexed fluorescent imaging using iterative hybridization/de-hybridization cycles of short oligonucleotides to labeled affinity reagents" from the laboratory of Dr. Garry Nolan.

2. AMENDMENT

2.1 Paragraph 2.6 of Original Agreement is hereby deleted in its entirety and replaced with the following:

"**Licensed Patent**" means Stanford's: U.S. Provisional Applications Serial Number 62/015,799 filed June 19, 2014 and Serial Number 62/367,530 filed July 27, 2016; U.S. Patent Application Serial Number 14/560,921, filed December 4, 2014, PCT Application Serial Number PCT/US15/36763, any U.S. and foreign patent applications corresponding thereto, and any conversions, divisionals, continuations, substitutions, or reexamination applications, each patent that issues or reissues from any of these patent applications, any extensions or renewals of any such patents, and any applications claiming priority thereto. Any claim of an unexpired Licensed Patent is presumed to be valid unless it has been held to be invalid by a final judgment of a court of competent jurisdiction from which no appeal can be or is taken. Neither Party will file CIP applications without other Party's prior written consent.

2.2 Paragraph 7.6 of Original Agreement is hereby deleted in its entirety and replaced with the following

License Maintenance Fee. Beginning on the first anniversary of the Effective Date, and each anniversary thereafter, AKOYA will pay Stanford yearly license maintenance fees as follows:

(A) $20,000 each Effective Date anniversary until first commercial sale of a Licensed Instrument. For sake of clarity, a commercial sale does not include the sale(s) of an alpha or beta instrument for purposes of obtaining user feedback for further product development;

(B) $40,000 each Effective Date anniversary thereafter until 2022 Effective Date anniversary, 2022 or when AKOYA reaches cumulative Net Sales of $[***], whichever occurs earlier; and

(C) $50,000 each Effective Date anniversary thereafter.

Yearly maintenance payments are nonrefundable, but they are creditable each year as described in Section 7.12.

2.3 Paragraph 7.7 will be amended to include:

7.7(C) $[***]upon first to issue of Licensed Patents claiming priority to US provisional Application Serial Number [***].

2.4 Appendix A will be deleted and replaced by the attached Appendix A.

3. OTHER TERMS

3.1 Within 30 days following execution of this Amendment, AKOYA will pay to Stanford a one-time noncreditable, nonrefundable payment of $[***].

3.2 All other terms of the Original Agreement remain in full force and effect.

3.3 The parties to this document agree that a copy of the original signature (including an electronic copy) may be used for any and all purposes for which the original signature may have been used. The parties further waive any right to challenge the admissibility or authenticity of this document in a court of law based solely on the absence of an original signature.

The parties execute this Amendment No 1 by their duly authorized officers or representatives.

THE BOARD OF TRUSTEES OF THE
LELAND STANFORD JUNIOR UNIVERSITY

Signature: /s/ Luis R. Mejia
Name: Luis R. Mejia
Title: Associate Director, OTL
Date: November 18, 2016

AKOYA BIOSCIENCES, INC.

Signature: /s/ Rob C. Hart
Name: Rob C. Hart
Title: Chief Financial Officer
Date: November 18, 2016

Appendix A - Milestones

Milestone	Date
1. Hire executive to be responsible for product development	60 days after Effective Date
2. Develop working prototype of Codex 1 Instrument	Q4 2016
3. Develop working prototype of Codex 2 instrument	Q4 2017
4. Raise additional funds to support Codex 2 (and Codex 1) commercialization	Q4 2017
5. Place Codex 1 beta instrument in academic laboratory	Q1 2018
6. Place Codex 2 beta instrument in academic laboratory	Q4 2018
7. Develop Codex 1 instrument to be able to analyze 40 parameters per cell	01 2019
8. First commercial sale of Codex 1 instrument	Q3 2019
9. Develop Codex 2 specific panels of antibodies/reagents for two applications	Q4 2019
10. Secure distributor for European market	Q3 2019
11. First commercial sale of Codex 2 instrument	Q4 2020
12. First commercial sale of Licensed Product instrument to clinical diagnostics lab	Q42021
13. Establish laboratory to offer commercial access to technology via service offering	Q1 2021
14. Achieve at least $[***]of cumulative revenue	FYE 2022

Note that Codex 1 refers to the technology that is described in Licensed Patent, U.S. Provisional Application Serial Number 62/015,799 filed June 19, 2014 and Codex 2 refers to the technology that is described in Licensed Patent, U.S. Provisional Application Serial Number 62/367,530 filed July 27, 2016.

Should AKOYA fail to meet any of the above milestones, AKOYA and Stanford agree to meet to negotiate commercially reasonable modifications to such milestone. However, if Stanford and AKOYA are not able to come to agreement on such commercially reasonable modifications within a 2 month period starting upon AKOYA notifying Stanford that it would like to re-negotiate such milestones, then the original milestones will remain. In addition, AKOYA and Stanford agree that once AKOYA has achieved the final milestone, the two parties will come together to discuss additional sales or other milestones that will ensure that both the Codex 1 and Codex 2 technology is continued to be offered for the public's use and benefit.

Exhibit 10.11

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

License and Royalty Agreement

This License and Royalty Agreement (this "Agreement") is entered into as of September 28, 2018 (the "Effective Date") by and among PerkinElmer Health Sciences, Inc., a Delaware corporation ("PHS"), Cambridge Research & Instrumentation, Inc., a Delaware corporation ("CRI") and VisEn Medical Inc., a Delaware corporation ("VisEn" and, together with PHS and CRI, "Licensor"), and Akoya Biosciences, Inc., a Delaware corporation ("Licensee"). PHS, CRI, VisEn and Licensee are each referred to herein individually as a "Party" and collectively, as the "Parties."

RECITALS

WHEREAS, Licensor and their Affiliates, among other things, are engaged in the business of developing, manufacturing, marketing and selling quantitative pathology reagents, instruments, software and contract services for detecting biomarkers and/or structural features in non-blood *ex vivo* tissue samples using microscopic multiplexed imaging and instruments equipped with a liquid crystal tunable filter (the "QPS Business").

WHEREAS, Licensor is the owner of the entire right, title, and interest in and has the right to license to Licensee the Licensed Patents (as defined below) and Licensed Know-How (as defined below); and

WHEREAS, Licensee wishes to practice the Licensed Patents and Licensed Know-How in the Field of Use (as defined below) in the Territory (as defined below) in connection with developing, manufacturing, marketing, importing, using and selling QPS Products and Services (as defined below) and Licensor is willing to grant to Licensee a license to and under the Licensed Patents and Licensed Know-How on the terms and conditions set out in this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of the premises and the mutual representations, covenants and agreements hereinafter set forth, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto hereby agree as follows:

1. Definitions. For purposes of this Agreement, the following terms shall have the following meanings:

"Affiliate or Affiliated" with respect to any specified Person, means a Person that directly or indirectly, through one or more intermediaries, Controls, is Controlled by, or is under common Control with, such specified Person. "Control" (including the terms "Controlled by" and "under common Control with") means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of a Person, whether through the ownership of stock, by contract or otherwise.

"Annual Period" means each annual period commencing on January 1 and ending on December 31 during the Royalty Term, provided that the first annual period shall commence on the Effective Date and end on December 31, 2018.

"Change of Control" means (i) the acquisition, directly or indirectly, by any person, entity or "group" (within meaning of Section 13(d)(3) or 14(d)(2) of the Securities Exchange Act of 1934) by means of a transaction or series of related transactions, of (a) beneficial ownership (within meaning of Rule 13d-3 under the Securities Exchange Act of 1934) of fifty percent (50%) or more of the (x) outstanding shares of common stock of a Party or (y) combined voting power of outstanding voting securities entitled to vote generally in the election of directors of a Party or (b) all, or substantially all, of the assets of a Party; or (ii) any consolidation or merger of a Party or any direct or indirect subsidiary of a Party with or into any Third Party, or any other corporate reorganization involving a Third Party, in which those persons or entities that are beneficial owners of voting equity securities of a Party immediately prior to such consolidation, merger or reorganization (or prior to any series of related transactions leading up to such event) beneficially own (by virtue of the retention, exchange or conversion of their equity securities in a Party) fifty percent (50%) or less of the then-outstanding shares of common stock and combined voting power of then-outstanding voting securities entitled to vote generally in the election of directors of the surviving entity or any parent thereof immediately after such consolidation, merger or reorganization.

"Cover", "Covered" or "Covering" means, with respect to a particular QPS Product and a particular Licensed Patent, that, but for rights granted hereunder, the making, using, importing or selling of such QPS Product would infringe a Valid Claim in such Licensed Patent.

"Excluded Licensee Products and Services" means the products and services (i) being developed, marketed and/or sold by Licensee and/or its Affiliates prior to the Effective Date and any improvements made thereto during the Royalty Term (excluding any improvements Covered by a Licensed Patent) or (ii) acquired by Licensee or its Affiliates from a Third Party after the Effective Date (excluding any products or services covered by any Licensor Improvement Patent) and any improvements made thereto during the Royalty Term (excluding any improvements Covered by a Licensed Patent).

"Exclusive Licensed Patent(s)" means the patents and patent applications listed in Exhibit A attached hereto together with all patents that issue therefrom and all continuations, continuations-in-part, divisionals, extensions, substitutions, reissues, re-examinations, and renewals claiming priority to any of the foregoing.

"Field of Use" means any field other than the Licensor Field.

"GAAP" means United States generally accepted accounting principles consistently applied.

"Governmental Body" means any federal, state, local, municipal, foreign, or other governmental or quasi-governmental authority, including without limitation any administrative, executive, judicial, legislative, regulatory or taxing authority of any nature in any jurisdiction.

"Improvement" means any modification, development or improvement that has utility: (i) for practicing the inventions of the Licensed Patents; or (ii) incorporates, uses, or is derived from any Licensed Know-How.

"Improvement Period" means the period commencing on the Effective Date and ending on the earlier of: (i) the three (3) year anniversary of the Effective Date; or (ii) a Change of Control of Licensee.

"Knowledge of Licensor" means the actual knowledge, upon reasonably inquiry, of Terry Lo, Peter Miller and Cliff Hoyt and the actual knowledge of Kevin Oliver.

"Law" means any federal, state, local, municipal, foreign, international, multinational, or other statute, law, order, constitution, rule, regulation, ordinance, principle of common law, treaty or other requirement of any Governmental Body.

"Licensed Know-How" means any and all technical information, trade secrets, formulas, prototypes, specifications, directions, instructions, test protocols, procedures, results, studies, analyses, data, manufacturing data, formulation or production technology, conceptions, ideas, innovations, discoveries, inventions, processes, methods, materials, machines, devices, formulae, equipment, enhancements, modifications, technological developments, techniques, systems, tools, designs, drawings, plans, software, documentation, data, programs, and other knowledge, information, skills, and materials owned or controlled by Licensor pertaining to the Licensed Patents and necessary or useful in developing, manufacturing, marketing, importing, using and selling QPS Products and Services, and any modifications, variations, derivative works, and improvements of or relating to any of the foregoing.

"Licensed Patent(s)" means the Exclusive Licensed Patents and Non-Exclusive Licensed Patents.

"Licensee Improvement Patent" means all patent applications, and all patents issuing therefrom that claim Improvements, have a filing date or were acquired by, transferred or licensed to Licensee after the Effective Date and under which Licensee has the right to grant the licenses outside the Field of Use granted hereunder.

"Licensor Field" means reagents, instruments, software and services for: (i) analysis of samples for which a majority of the cells were grown outside of an organism; (ii) analysis of samples that are, or are entirely inside, a macro organism; and (iii) non-microscopic analysis of samples that were obtained from, but are no longer inside, a living organism.

"Licensor Improvement Patent" means all patent applications, and all patents issuing therefrom that claim Improvements, have a filing date or were acquired by, transferred or licensed to Licensor after the Effective Date and under which Licensor has the right to grant the licenses inside the Field of Use granted hereunder.

"Losses" means all losses, damages, liabilities, deficiencies, claims, actions, judgments, settlements, interest, awards, penalties, fines, costs, or expenses of whatever kind, including reasonable attorneys' fees and the cost of enforcing any right to indemnification hereunder.

"Net Sales" means the gross invoice price for any QPS Products and Services sold to Third Parties by Licensee or its Sublicensees, less the sum of the following: (i) discounts allowed in amounts customary in the trade; (ii) sales, tariff duties, custom duties and use taxes directly imposed and with reference to particular sales; (iii) amounts allowed or credited on returns; and (iv) net bad debt, early payment cash discounts, and transportation and insurance costs charged to Third Parties. No deductions from Net Sales Price shall be made for commissions paid to individuals whether they are with independent sales agencies or regularly employed by Licensee or its Affiliates and on their respective payrolls, or for cost of collections. All calculations of Net Sales shall be in accordance with GAAP, consistently applied. For the avoidance of doubt, for the purposes of calculating Net Sales transfers of QPS Products and Services: (X) for end use (but not resale) by an Affiliate shall be treated as sales by Licensee at Licensee's list price less the deductions set forth above; and (Y) for resale by a Sublicensee shall be treated as sales at the gross invoice price charged by such Sublicensee to a Third Party less the deductions set forth above.

"Non-Exclusive Licensed Patent(s)" means any and all patents and patent applications controlled by Licensor and/or its Affiliates as of the Effective Date that are necessary for or identified by Licensee as useful to the QPS Business that are not otherwise included in the Exclusive Licensed Patents, including without limitation, the patents and patent applications listed in Exhibit B attached hereto together with all patents that issue therefrom and all continuations, continuations-in-part, divisionals, extensions, substitutions, reissues, re-examinations, and renewals claiming priority to any of the foregoing.

"Person" means any individual, corporation, general or limited partnership, limited liability company, joint venture, estate, trust, association, organization, labor union, or other entity or Governmental Body.

"QPS Products and Services" means all products and services (either in existence or in development) within the Field of Use, including without limitation all products and services of the QPS Business as operated by Licensor and its Affiliates as of the Effective Date, and any and all products and services of the QPS Business as operated by Licensee and its Sublicensees on and after the Effective Date. For the avoidance of doubt, QPS Products and Services include any and all products and services of the QPS Business and are not limited to products and services which use or pertain to the Licensed Patents and/or Licensed Know-How. Notwithstanding the foregoing, QPS Products and Services shall not include any Excluded Licensee Products and Services.

"Representatives" means a Party's and its Affiliates' employees, officers, directors, consultants, and legal advisors.

"Royalty Term" means the period commencing on the Effective Date and ending on the expiration of the last Valid Claim of a Licensed Patent listed on Exhibit A or Exhibit B attached hereto.

"Sublicensee" means, with respect to any QPS Products or Services, any Licensee Affiliate or any Third Party to whom Licensee has granted a sublicense under this Agreement, but excluding any Licensee Affiliate or any Third Party acting solely as a distributor or manufacturer.

"Territory" means worldwide.

"Third Party" means any Person other than Licensor or Licensee that is not an Affiliate of Licensor or of Licensee.

"Valid Claim" means a claim of an unexpired issued or granted Licensed Patent as long as the claim has not been admitted by Licensor or otherwise caused to be invalid or unenforceable through reissue, disclaimer, or otherwise, or held invalid or unenforceable by a Governmental Body of competent jurisdiction from whose judgment no appeal is allowed or timely taken; wherein "expiration" and "expire," when referring to a Valid Claim, means any expiration, revocation, invalidation, or other termination of the Licensed Patent incorporating the Valid Claim.

2. Grant.

2.1 Patent and Know-How License. Subject to the terms and conditions of this Agreement:

(a) Licensor hereby grants to Licensee during the Term a perpetual, irrevocable, royalty-bearing, exclusive (subject to Section 6), nontransferable (except pursuant to an assignment made in accordance with Section 16.9) and sublicensable (through multiple tiers and only within the Field of Use), right and license under the Exclusive Licensed Patents and Licensed Know-How to make, have made, use, offer to sell, sell, and import QPS Products and Services in the Field of Use in the Territory.

(b) Licensor hereby grants to Licensee during the Term a perpetual, irrevocable, royalty-bearing, non-exclusive, nontransferable (except pursuant to an assignment made in accordance with Section 16.9) and sublicensable (through multiple tiers and only within the Field of Use and only in conjunction with the Exclusive Licensed Patents and in further connection with developing, manufacturing, marketing, importing, using and selling QPS Products and Services), right and license under the Non-Exclusive Licensed Patents to make, have made, use, offer to sell, sell, and import QPS Products and Services in the Field of Use in the Territory. The Parties acknowledge and agree that Licensor has granted and may grant non-exclusive rights to Third Parties under the Non-Exclusive Licensed Patents.

2.2 Limited Grant. The exclusive character of the rights and licenses granted by Licensor under Section 2.1(a) are subject to Sections 5.4 and 6 and to rights retained by Licensor to practice the Exclusive Licensed Patents and use the Licensed Know-How and permit other Persons to practice the Exclusive Licensed Patents and use the Licensed Know-How, outside of the Field of Use for any purpose. Except for the rights and licenses granted by Licensor under this Section 2, this Agreement does not grant to Licensee or any other Person any right, title, or interest by implication, estoppel, or otherwise. Without limitation of the foregoing, nothing in this Agreement shall be construed as granting by implication, estoppel, or otherwise, any right, title, or interest in, to, or under any Licensor patents other than Licensed Patents regardless of whether such other patents are dominant or subordinate to any Licensed Patent. All rights, titles, and interests in the Licensed Patents and Licensed Know-How not specifically and expressly granted by Licensor hereunder are hereby reserved.

3. Improvements.

3.1 Notice of Licensor Improvements. Promptly after the filing date or, where applicable, the effective date of any assignment or transfer to Licensor, of any relevant Licensor Improvement Patent during the Improvement Period, Licensor shall provide written notice to Licensee ("Licensor Improvement Notice") that identifies each Licensor Improvement Patent, whether such Licensor Improvement Patent relates to an Exclusive Licensed Patent or a Non-Exclusive Licensed Patent and its filing or acquisition date and includes a copy of each Licensor Improvement Patent.

3.2 License to Licensor Improvements. If Licensee wishes to include any Licensor Improvement Patent as a Licensed Patent under this Agreement, Licensee shall provide, within thirty (30) days of receipt of the Licensor Improvement Notice, written notice to Licensor specifying the particular Licensor Improvement Patents that Licensee wishes to include as a Licensed Patent. Immediately upon Licensee's notice to Licensor, each Licensor Improvement Patent identified by Licensee in the notice will be deemed a Licensed Patent under this Agreement; provided that if such Licensor Improvement Patent relates to an Exclusive Licensed Patent then the license grant will be exclusive and otherwise in accordance with Section 2.1(a) above and if such Licensor Improvement Patent relates to a Non-Exclusive Licensed Patent then the license grant will be non-exclusive and otherwise in accordance with Section 2.1(b) above.

3.3 Notice of Licensee Improvements. From time to time, but no more frequently than once per calendar year during the Improvement Period, Licensor may submit a written request for Licensee to disclose any Licensee Improvement Patent. Within thirty (30) days of such request, License shall provide written notice to Licensor (a "Licensee Improvement Notice") that identifies any License Improvement Patent(s) and its filing or acquisition date and includes a copy of each Improvement Patent(s).

3.4 License to Licensee Improvements. If Licensor wishes to obtain a license to any Licensee Improvement Patent disclosed to Licensor, Licensor shall provide, within thirty (30) days of receipt of the Licensee Improvement Notice, written notice to Licensee specifying the particular Licensee Improvement Patent(s) to which Licensor wishes to secure a license outside the Field of Use. Effective immediately upon receipt of Licensor's notice, Licensee hereby grants to Licensor and its Affiliates a non-exclusive, worldwide, royalty free, perpetual license to any such Licensee Improvement Patent(s) to make and have made, use, offer to sell and sell, and import any products and processes covered by such Licensee Improvement Patent(s) outside of the Field of Use.

4. Technology Transfer

4.1 Transfer of Know-How. Licensor shall promptly after the Effective Date, disclose the Licensed Know-How to Licensee. Without limiting the foregoing, Licensor shall disclose and deliver to Licensee all tangible embodiments of all Licensed Know-How in its possession and control that are useful or necessary to research, develop, make, use, sell, offer for sale or import the QPS Products and Services, in each case to the extent not provided to Licensee prior to the Effective Date. Licensor shall make such Licensed Know-How available in a mutually agreed upon format and where feasible in electronic form. All Licensed Know-How disclosed or required to be disclosed pursuant to this Section 4.1 shall be deemed the Confidential Information of Licensee.

4.2 Reasonable Assistance. Without limiting the foregoing, during the six (6) month period following the Effective Date, Licensor will provide reasonable assistance to Licensee or its designee in connection with understanding and using the Licensed Know-How within the scope of the license granted under Section 2. In providing Licensed Know-How under Section 4.1, Licensor shall deliver written and electronic materials to Licensee, and during the six (6) month period following the Effective Date, reasonable assistance from its professional staff for meetings, telephone calls, and other reasonable assistance as requested by Licensee to enable it to understand and use such Licensed Know-How.

5. Royalties.

5.1 Royalty. In consideration of its license to the Licensed Patents and Licensed Know-How under this Agreement, Licensee shall pay to Licensor a running royalty in an amount equal to the following percentages of the Net Sales of any and all QPS Products and Services sold or delivered by or for Licensee (including by or through any Affiliate or Sublicensee) during the Royalty Term (the "Royalty"):

(i) [***]% of the Net Sale Price for any and all QPS Products and Services sold or delivered from the Effective Date through December 31, 2019;

(ii) [***]% of the Net Sale Price for any and all QPS Products and Services sold or delivered from January 1, 2020 through December 31, 2020;

(iii) [***]% of the Net Sale Price for any and all QPS Products and Services sold or delivered from January 1, 2021 through December 31, 2024; and

(iv) [***]% of the Net Sale Price for any and all QPS Products and Services sold or delivered from January 1, 2025 through the end of the Royalty Term.

5.2 Taxes. Licensor shall be liable for all income and other taxes (including interest) ("Taxes") imposed on Licensor by applicable Law with respect to any payments made by Licensee to Licensor under this Section 5 or otherwise pursuant to this Agreement ("Agreement Payments"). If applicable Laws require the withholding of Taxes, ("Withholding Taxes"), Licensee shall notify Licensor of any such Withholding Taxes, pay such Withholding Taxes to the applicable Governmental Body and shall subtract the amount thereof from the Agreement Payments, and such Withholding Taxes shall be treated for all purposes of this Agreement as having been paid to Licensor hereunder. Licensee shall submit to Licensor appropriate proof of payment of all Withholding Taxes as well as the official receipts within a reasonable period of time. Licensee shall provide Licensor reasonable information in its possession in order to allow Licensor to obtain the benefit of any present or future treaty against double taxation which may apply to the Agreement Payments.

5.3 Payment Terms and Instructions. Licensee shall pay the Royalty for each Annual Period within ninety (90) days after the end of such Annual Period (as applicable, the "Annual Payment Date"). Licensee shall make all payments in U.S. dollars by wire transfer of immediately available funds to the following bank account unless otherwise instructed in writing by Licensor:

Bank of America, N.A.
100 N. Tryon Street
Charlotte, NC 28202
Account Name: Caliper Life Sciences, Inc.
Acct #: 4427706378
ABA #: 026009593
Swift #: BOFAUS3N

5.4 Annual Payment Default. If Licensee fails to make any annual Royalty payment prior to or on the due date for such annual Royalty payment under Section 5.3 (a "Royalty Payment Default"), the license granted pursuant to Section 2.1(a) shall automatically convert to a non-exclusive license if Licensee fails to cure such Royalty Payment Default within thirty (30) days of receipt of written notice from Licensor of such Royalty Payment Default. In addition to the foregoing, in the event that a Royalty Payment Default continues for more than ninety (90) days after the date when such annual Royalty payment is due, then Licensee shall grant Licensor a security interest in the Licensed Patents to secure Licensee's payment obligations under this Agreement upon written request of Licensor and enter into such agreements as reasonable required by Licensor to perfect such security interest.

5.5 Late Payments. In the event undisputed payments are not received by Licensor when due hereunder, Licensee shall pay to Licensor interest charges that will accrue interest until paid at a rate equal to [***] ([***]%) above the U.S. Prime Rate, as reported in the Wall Street Journal, Eastern Edition from time-to-time (or the maximum allowed by Law, if less), calculated on the number of days such undisputed payment is overdue. If Licensee disputes any payment due hereunder, Licensee shall notify Licensor in writing within ten (10) days of the due date of such payment and the Parties will work in good faith to resolve any such dispute within ten (10) days of delivery of any such notice; provided that if such dispute is not resolved within such ten (10) day period then such payment shall be considered late for purposes of this Section 5.6 and each Party may exercise its rights hereunder with respect to such payment.

5.6 Royalty/Payment Statements. On or before the due date for each annual Royalty payment to Licensor pursuant to Section 5.3 during the Royalty Term, Licensee shall provide Licensor with a statement (a "Payment Statement") showing: (i) the Net Sales for all QPS Products and Services sold by Licensee and its Sublicensees during the reporting period; and (ii) the Royalty for such Annual Period including an identification of the aggregate amount of deductions taken by Licensee in calculating the Royalty for such Annual Period. Licensee shall at all times act in good faith (including the use of GAAP, consistently applied) when calculating the Net Sales and related calculations hereunder and shall not intentionally or knowingly inappropriately or inaccurately apportion amounts invoiced for the purpose or effect of circumventing or depriving Licensor of the benefit of the definition of Net Sales and related calculations hereunder.

6. Records and Audit. For a period of five (5) years from the payment date for any Annual Period, Licensee shall keep complete and accurate records of all sales of QPS Products and Services reasonably necessary for the calculation of the payments to be made to Licensor hereunder. Licensor, at its own expense, may at any time within five (5) years after receiving any Payment Statement from Licensee, nominate an independent Certified Public Accountant, reasonably acceptable to Licensee, ("Auditor") who shall have access to Licensee's records during Licensee's normal business hours for the purpose of verifying all payments made under this Agreement. The Auditor's report shall disclose only whether the Payment Statements are correct or incorrect and the amount of any discrepancy. Licensor shall provide to Licensee a copy of the Auditor's audit report within sixty (60) days of Licensor's receipt of the report. If the report shows that payments made by Licensee are deficient, and Licensee does not dispute such report, Licensee shall pay Licensor the undisputed deficient amount plus interest on the deficient amount, as calculated pursuant to Section 5.5 (the "Deficiency Amount"), within fifteen (15) days after Licensee's receipt of the audit report. If the Deficiency Amount is more than [***] ([***]%) of the amount set forth in the applicable Payment Statement, and Licensee does not dispute such finding, Licensee shall pay for the cost of the audit. If Licensee disputes the findings of any audit report hereunder, Licensee shall notify Licensor in writing within ten (10) days of receipt of such audit report and the Parties will work in good faith to resolve any such dispute within ten (10) days of delivery of any such notice; provided that if such dispute is not resolved within such ten (10) day period then each Party may exercise its rights under Article 15 with respect to such dispute. The license granted pursuant to Section 2.1(a) shall automatically convert to a non-exclusive license if Licensee fails to pay any undisputed Deficiency Amount (or any Deficiency Amount as finally resolved pursuant to Article 15 if Licensee disputes the findings of any audit report hereunder) within thirty (30) days of receipt of written notice from Licensor. In addition to the foregoing, in the event that Licensee fails to pay any undisputed Deficiency Amount (or any Deficiency Amount as finally resolved pursuant to Article 15 if Licensee disputes the findings of any audit report hereunder) within ninety (90) days of receipt of written notice from Licensor, then Licensee shall grant Licensor a security interest in the Licensed Patents to secure Licensee's payment obligations under this Agreement upon written request of Licensor and enter into such agreements as reasonably required by Licensor to perfect such security interest. The Parties agree that all applicable statutes of limitation and time-based defenses (including, but not limited to, estoppel and laches) shall be tolled upon any request by Licensor for an audit under this Section 6, and the Parties shall cooperate in taking any actions necessary to achieve this result.

7. Patent Prosecution and Maintenance.

7.1 Responsibilities and Cooperation. Subject in each case to Section 7.2, for each patent and patent application included as a Licensed Patent, Licensor shall be responsible for, shall make all decisions concerning and bear all costs of, the preparation, filing, prosecution, and maintenance thereof, and shall notify Licensee of any material additions or material deletions and any material changes in the status of any Licensed Patent. In addition, Licensor shall be responsible for, shall make all decisions concerning and bear all costs of prosecuting or defending any inter pastes review, post-grant review, covered business method patent review, opposition, derivation, or interference proceeding in the US Patent and Trademark Office or foreign patent offices. Licensor shall use its best efforts to keep Licensee advised of the status of all material communications, actual and prospective filings or submissions regarding the Exclusive Licensed Patents, and shall use its best efforts to give Licensee copies of any such material communications, filings and submissions proposed to be sent to any patent authority or judicial body, and consider in good faith Licensee's comments on the material communications, filings and submissions for the Exclusive Licensed Patents.

7.2 Abandonment. Should Licensor decide in good faith to abandon a Licensed Patent, it shall provide Licensee with written notice of such intention, whereby Licensee shall have the option to assume responsibility for the Licensed Patent, including all further costs associated therewith. Should Licensee inform Licensor in writing within thirty (30) days of receiving such notice that Licensee wishes to assume responsibility, Licensor shall assign such Licensed Patent (which Licensed Patents shall be subject to any Third Party licenses outside the Field of Use previously granted) to Licensee and thereafter such patent or patent application shall no longer be a "Licensed Patent" for purposes of this Agreement, and Licensee shall grant Licensor and its Affiliates a fully paid, royalty-free, non-exclusive license to make and have made, use, offer to sell and sell, and import any products and processes covered by such patents outside of the Field of Use.

8. Challenges to Licensed Patents. Neither Licensee nor any of its Affiliates shall, directly or indirectly, institute or actively participate as an adverse party in, or otherwise provide material support to, any legal action or administrative proceeding to invalidate or limit the scope of any Licensed Patent claim or obtain a ruling that any Licensed Patent claim is unenforceable or not patentable. Licensee's failure to comply with this provision shall constitute a material breach of this Agreement. Notwithstanding the foregoing, it shall not be a breach of this Section 8; in the event that (i) Licensee or its Affiliates are an essential party in any patent interference proceeding before the United States Patent and Trademark Office, (ii) Licensee or its Affiliates, due to its status as an exclusive licensee of patents other than the Licensed Patents, are named by the licensor of such other patents as a real party in interest in such an interference, so long as Licensee or the applicable Affiliate either abstains from participation in, or acts in good faith to settle, the interference, or (iii) any assertion by Licensee or its Affiliates relating to validity, patentability, scope, priority, construction, non-infringement, inventorship, ownership or enforceability as a defense in any legal proceeding, administrative proceeding or arbitration brought by Licensor or its Affiliates or licensees or assignees asserting infringement against Licensee or its Affiliates within the Field of Use. Moreover, it shall not be a breach of this Section 8 in the event that Licensee makes arguments distinguishing the inventions claimed in patents owned or controlled by Licensee ("Licensee Patent Rights") from those claimed in the Licensed Patents in the ordinary course of ex parte prosecution of the Licensee Patent Rights or in inter partes proceedings before the United States Patent and Trademark Office or other agency or tribunal in any jurisdiction (excluding interferences or derivation proceedings), or in arbitration or litigation, wherein Licensee Patent Rights have been challenged.

9. Enforcement of Licensed Patents and Licensed Know-How and Third-Party Infringement Claims.

9.1 Notice of Infringement or Third-Party Claims. If: (i) either Party believes that an Exclusive Licensed Patent or Licensed Know-How is being infringed or misappropriated by a Third Party; or (ii) if a Third Party initiates a proceeding that any Exclusive Licensed Patent is invalid or unenforceable, the Party possessing such belief or awareness of such claims shall promptly provide written notice to the other Party and provide it with all details of such infringement or proceeding, as applicable, that are known by such Party. Within ten (10) business days after receiving such notice the Parties shall discuss an appropriate plan of action, including either Party's concerns about initiating a lawsuit or otherwise making or prosecuting a claim pursuant to Section 9.2 below.

9.2 Actions.

(a) If any Exclusive Licensed Patent is believed to be infringed by the development, manufacture, use, offer for sale, sale or importation of a product by a Third Party solely inside the Field of Use in any country in the Territory in which there is a Licensed Patent, then, Licensee shall have the first right, but not the obligation, to institute, prosecute, and control any action or proceeding with respect to such infringement of such patent, by counsel of its own choice. If Licensee does not take action in the prosecution, prevention, or termination of any infringement pursuant to this Section 9.2 and has not commenced negotiations with the suspected infringer for the discontinuance of said infringement within ninety (90) calendar days after receipt of notice of the existence of an infringement, then subject to obtaining Licensee's prior written consent (which consent shall not be unreasonably withheld and shall in any event be deemed automatically given with respect to any Material Enforcement Action outside the Field of Use), Licensor may thereafter institute, prosecute, and control such action.

(b) If any Exclusive Licensed Patent is believed to be infringed by the development, manufacture, use, offer for sale, sale or importation of a product by a Third Party solely inside the Licensor Field, or in both the Licensor Field and the Field of Use, in any country in the Territory in which there is a Licensed Patent, then, Licensor shall have the first right, but not the obligation, to institute, prosecute, and control any action or proceeding with respect to such infringement of such patent, by counsel of its own choice. If Licensor does not take action in the prosecution, prevention, or termination of any infringement pursuant to this Section 9.2 and has not commenced negotiations with the suspected infringer for the discontinuance of said infringement within ninety (90) calendar days after receipt of notice of the existence of an infringement, then subject to obtaining Licensor's prior written consent (which consent shall not be unreasonably withheld and shall in any event be deemed automatically given with respect to any Material Enforcement Action inside the Field of Use), Licensee may thereafter institute, prosecute, and control such action.

9.3 Joinder; Cooperation.

(a) If a Party having the right to enforce an Exclusive Licensed Patent pursuant to Section 9.2 above (the "Enforcing Party") reasonably believe it is required to join the other Party (the "Non-Enforcing Party") for standing purposes or in order for the Enforcing Party to commence or continue any such proceeding, then the Enforcing Party shall notify the Non-Enforcing Party of the same in writing. Such writing shall not be effective unless delivered after the expiration of the ten (10) business day period set forth in Section 9.1.

(b) If within ten (10) business days after receiving such written notice, the Non-Enforcing Party does not object in writing to being joined to such proceeding, then the Enforcing Party shall have the right to join the Non-Enforcing Party, at the Enforcing Party's expense, and the Non-Enforcing Party shall be represented in such proceeding by counsel of the Non-Enforcing Party's choice, and the Non-Enforcing Party shall cooperate in all respects in the conduct thereof, and assist in all reasonable ways, including having its employees testify when requested, and make available for discovery or trial exhibit relevant records, papers, information, samples, specimens, and the like, subject to reimbursement by the Enforcing Party of any reasonable costs and expenses incurred on an on-going basis by such Non-Enforcing Party in providing such assistance.

(c) If within ten (10) business days after receiving such written notice, the Non-Enforcing Party provides a written objection to being joined and its reason therefor, then the Parties shall discuss and negotiate in good faith a reasonable alternative plan of action with respect such infringing activity. If the Parties are unable to agree on an appropriate alternative plan of action, such discussions shall be promptly escalated to a senior executive officer of each Party for resolution. If (i) the senior executives are unable to agree to an alternative plan of action within twenty (20) business days after receiving the initial joinder request and (ii) the Third Party infringement would likely result in actual damages to such Enforcing Party in excess of five million US dollars ($5,000,000.00) (excluding any special damages but including any damages for lost profits or for a reasonable royalty) as reasonably estimated by the Enforcing Party (a "Material Enforcement Action") then the Non-Enforcing Party shall (i) join such proceeding, at the Enforcing Party's expense, and may elect to be represented in such proceeding by counsel of the Non-Enforcing Party's choice and at the Enforcing Party's expense; and, (ii) cooperate in all respects in the conduct thereof, and assist in all reasonable ways, including having its employees testify when requested, and make available for discovery or trial exhibit relevant records, papers, information, samples, specimens, and the like, subject to reimbursement by the Enforcing Party of any reasonable costs and expenses incurred on an on-going basis by such Non-Enforcing Party in providing such assistance.

9.4 Recovery and Settlement. If an Enforcing Party undertakes the enforcement or defense of any Licensed Patent such Enforcing Party may settle any such suit, action, or other proceeding, whether by consent order, settlement, or other voluntary final disposition, without the prior written approval of the Non-Enforcing Party, provided that such Enforcing Party shall not settle any such suit, action, or other proceeding in a manner that adversely affects the rights of the other Non-Enforcing Party without such Non-Enforcing Party's prior written consent, which consent may not be unreasonably withheld, conditioned or delayed. Any recovery, damages, or other settlement amounts derived from enforcement or defense of any Licensed Patent shall be allocated first to the Enforcing Party and the Non-Enforcing Party for reimbursement of costs and expenses incurred by such Parties in connection with such suit, action or other proceeding. The Enforcing Party and the Non-Enforcing Party shall negotiate in good faith and mutually agree with respect to the allocation of the balance of any such recovery, damages, or other settlement amounts among the Enforcing Party and the Non-Enforcing Party and agree to give due consideration with regard to whether the infringing activity was solely inside the Field of Use, solely inside the Licensor Field, or in both the Field of Use and the Licensor Field.

9.5 Section 365(n) of the Bankruptcy Code. All rights and licenses granted under or pursuant to this Agreement by Licensor are and shall otherwise be deemed to be, for purposes of Section 365(n) of the U.S. Bankruptcy Code or any analogous provisions in any other country or jurisdiction, licenses of right to "intellectual property" as defined under Section 101 of the U.S. Bankruptcy Code. The Parties agree that Licensee, as licensee of such rights under this Agreement, shall retain and may fully exercise all of their rights and elections under the U.S. Bankruptcy Code or any analogous provisions in any other country or jurisdiction. The Parties further agree that, in the event of the commencement of a bankruptcy proceeding by or against Licensor under the U.S. Bankruptcy Code or any analogous provisions in any other country or jurisdiction, Licensee shall be entitled to a complete duplicate of (or complete access to, as appropriate) any such intellectual property and all embodiments of such intellectual property, which, if not already in Licensee's possession, shall be promptly delivered to it (a) upon any such commencement of a bankruptcy proceeding upon Licensee's written request therefor, unless Licensor elects to continue to perform all of its obligations under this Agreement or (b) if not delivered under clause (a) above, following the rejection of this Agreement by or on behalf of Licensor upon written request therefor by Licensee.

10. Compliance with Laws.

10.1 Regulatory Clearance. Licensee shall, at Licensee's expense, comply with all regulations and safety standards concerning QPS Products and Services developed, marketed and sold by or under the authority of Licensee and obtain all necessary governmental approvals for the development, manufacture, marketing, importation, sale, and use of QPS Products and Services developed, marketed and sold by or under the authority of Licensee, including any safety or clinical studies. Licensee shall have responsibility for and provide suitable warning labels, packaging, and instructions as to the use of such QPS Products and Services.

10.2 Export Compliance. Neither Licensee nor any of its Affiliates shall, directly or indirectly, export or re-export the QPS Products and Services (including any associated products, items, articles, computer software, media, services, technical data, and other information) in violation of any applicable U.S. Laws. Licensee shall include a provision similar in substance to this Section 10.2 in its agreements with its Sublicensees, Third Party distributors, customers, and end-users requiring that these Persons comply with all applicable U.S. Laws, including all applicable U.S. export Laws.

11. Confidentiality.

11.1 Confidentiality Obligations. Each Party for itself and on behalf of its Affiliates and Representatives (the "Receiving Party") acknowledges that in connection with this Agreement it will gain access to Confidential Information of the other Party (the "Disclosing Party"). As a condition to being provided with Confidential Information, the Receiving Party shall, during the Term: (a) not use the Disclosing Party's Confidential Information other than as strictly necessary to exercise its rights and perform its obligations under this Agreement; and (b) maintain the Disclosing Party's Confidential Information in strict confidence and, subject to Section 11.2, not disclose the Disclosing Party's Confidential Information without the Disclosing Party's prior written consent, provided, however, the Receiving Party may disclose the Confidential Information to its Representatives who: (i) have a need to know the Confidential Information for purposes of the Receiving Party's performance, or exercise of its rights concerning the Confidential Information, under this Agreement; (ii) have been apprised of this restriction; and (iii) are themselves bound by written nondisclosure agreements at least as restrictive as those set forth in this Section 11.1, provided further that the Receiving Party shall be responsible for ensuring its Representatives' compliance with, and shall be liable for any breach by its Representatives of, this Section 11.1. The Receiving Party shall use reasonable care, at least as protective as the efforts it uses for its own confidential information, to safeguard the Disclosing Party's Confidential Information from use or disclosure other than as permitted hereby. Upon any expiration or other termination of this Agreement, each Party's obligations with respect to Confidential Information received prior to such expiration or termination shall continue for a period of three (3) years after the date of termination; provided, however, that with respect to Confidential Information comprising a trade secret of the Disclosing Party or its Affiliates, such obligations shall continue for as long as such Confidential Information qualifies as a trade secret under applicable law.

11.2 Exceptions. If the Receiving Party becomes legally compelled to disclose any Confidential Information, the Receiving Party shall: (a) provide prompt written notice to the Disclosing Party so that the Disclosing Party may seek a protective order or other appropriate remedy or waive its rights under Section 11; and (b) disclose only the portion of Confidential Information that it is legally required to furnish. If a protective order or other remedy is not obtained, or the Disclosing Party waives compliance under Section 11, the Receiving Party shall, at the Disclosing Party's expense, use reasonable efforts to obtain assurance that confidential treatment will be afforded the Confidential Information.

11.3 Confidential Information. For purposes of this Section 11, "Confidential Information" means all non-public, confidential, or proprietary information of the Disclosing Party, or its Affiliates or Representatives, whether in oral, written, electronic, or other form or media, whether or not such information is marked, designated, or otherwise identified as "confidential" and includes the terms and existence of this Agreement and any information that, due to the nature of its subject matter or circumstances surrounding its disclosure, would reasonably be understood to be confidential or proprietary, including, specifically: (i) the Licensed Know-How; (ii) the Disclosing Party's other unpatented inventions, ideas, methods, discoveries, know-how, trade secrets, unpublished patent applications, invention disclosures, invention summaries, and other confidential intellectual property; (iii) all other designs, specifications, documentation, components, source code, object code, images, icons, audiovisual components and objects, schematics, drawings, protocols, processes, and other visual depictions, in whole or in part, of any of the foregoing; and (iv) all notes, analyses, compilations, reports, forecasts, studies, samples, data, statistics, summaries, interpretations, and other materials prepared by or for the Receiving Party, its Affiliates, or its Representatives that contain, are based on, or otherwise reflect or are derived from any of the foregoing in whole or in part. Confidential Information does not include information that a Receiving Party can demonstrate by documentation: (w) was already known to the Receiving Party without restriction on use or disclosure prior to the receipt of such information directly or indirectly from or on behalf of the Disclosing Party; (x) was or is independently developed by the Receiving Party without reference to or use of any Disclosing Party's Confidential Information; (y) was or becomes generally known by the public other than by breach of this Agreement by, or other wrongful act of, the Receiving Party, its Affiliates, or any of its Representatives; or (z) was received by the Receiving Party from a Third Party who was not, at the time, under any obligation to the Disclosing Party or any other Person to maintain the confidentiality of such information. Notwithstanding anything to the contrary herein, all Confidential Information that relates to the QPS Products and Services shall be the Confidential Information of Licensee, all Confidential Information that relates to the Licensed Patents and/or Licensed Know-How shall be the joint Confidential Information of Licensee and Licensor in accordance with each Party's rights hereunder, and subsections (w), (x) or (z) shall not be applicable to Licensee with respect to Confidential Information that relates to the QPS Products and Services or joint Confidential Information.

12. Representations and Warranties.

12.1 Mutual Representations and Warranties. Each Party represents and warrants to the other Parties that as of the Effective Date: (a) it is duly organized, validly existing, and in good standing as a corporation or other entity as represented herein under the Laws of its jurisdiction of organization; (b) it has, and throughout the Term shall retain, the full right, power, and authority to enter into this Agreement and to perform its obligations hereunder; (c) the execution of this Agreement by its representative whose signature is set forth at the end hereof has been duly authorized by all necessary action of the Party; and (d) when executed and delivered by such Party, this Agreement shall constitute the legal, valid, and binding obligation of that Party, enforceable against that Party in accordance with its terms.

12.2 Licensor's Representations and Warranties. Licensor represents and warrants as of the Effective Date that:

(a) Licensor is the sole and exclusive owner of the Exclusive Licensed Patents;

(b) Licensor has the right to grant all rights and licenses it purports to grant to Licensee with respect to the Licensed Patents;

(c) Licensor has not granted any right or license to any Third Party relating to any of the Licensed Patents that conflicts or interferes with any of the rights or licenses granted to Licensee hereunder; and

(d) To the Knowledge of Licensor, the Exclusive Licensed Patents are valid and enforceable and Licensor has complied with all applicable Laws and duties of candor with respect to the filing, prosecution and maintenance of the Exclusive Licensed Patents. Licensor has paid all maintenance and annuity fees with respect to the Exclusive Licensed Patents due as of the Effective Date. No dispute regarding inventorship or ownership of an Exclusive Licensed Patent has been alleged or threatened.

12.3 Licensee's Representation and Warranties. Licensee represents and warrants that it has not received any notice or threat of any claim, suit, action, or proceeding, and has no knowledge of any information, that likely would: (a) invalidate or render unenforceable any claim of any Licensed Patent; (b) prove that the QPS Products and Services are not covered by any claim of any Licensed Patent; or (c) cause any claim of any Licensed Patent to fail to issue or be materially limited or restricted as compared with its currently pending scope.

12.4 Disclaimer of Representations and Warranties. EXCEPT AS OTHERWISE SET FORTH IN THIS AGREEMENT OR ANY OTHER AGREEMENT BETWEEN THE PARTIES AND/OR THEIR AFFILIATES, LICENSOR EXPRESSLY DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES, WHETHER WRITTEN, ORAL, EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE, CONCERNING THE VALIDITY, ENFORCEABILITY, AND SCOPE OF THE LICENSED PATENTS, THE ACCURACY, COMPLETENESS, SAFETY, USEFULNESS FOR ANY PURPOSE, OR LIKELIHOOD OF SUCCESS (COMMERCIAL, REGULATORY OR OTHER) OF THE LICENSED PATENTS, LICENSED KNOW-HOW, AND ANY OTHER TECHNICAL INFORMATION, TECHNIQUES, MATERIALS, METHODS, PRODUCTS, PROCESSES, OR PRACTICES AT ANY TIME MADE AVAILABLE BY LICENSOR, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY, QUALITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, AND WARRANTIES ARISING FROM A COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE, OR TRADE PRACTICE. WITHOUT LIMITATION TO THE FOREGOING, EXCEPT AS OTHERWISE SET FORTH IN THIS AGREEMENT OR ANY OTHER AGREEMENT BETWEEN THE PARTIES AND/OR THEIR AFFILIATES LICENSOR SHALL HAVE NO LIABILITY WHATSOEVER TO LICENSEE OR ANY OTHER PERSON FOR OR ON ACCOUNT OF ANY INJURY, LOSS, OR DAMAGE, OF ANY KIND OR NATURE, SUSTAINED BY, OR ANY DAMAGE ASSESSED OR ASSERTED AGAINST, OR ANY OTHER LIABILITY INCURRED BY OR IMPOSED ON LICENSEE OR ANY OTHER PERSON, ARISING OUT OF OR IN CONNECTION WITH OR RESULTING FROM (A) THE MANUFACTURE, USE, OFFER FOR SALE, SALE, OR IMPORT OF ANY QPS PRODUCT OR SERVICE, OR THE PRACTICE OF THE LICENSED PATENTS AFTER THE EFFECTIVE DATE; (B) THE USE OF OR ANY ERRORS OF OMISSIONS IN ANY KNOW-HOW, TECHNICAL INFORMATION, TECHNIQUES, OR PRACTICES DISCLOSED BY LICENSOR; OR (C) ANY ADVERTISING OR OTHER PROMOTIONAL ACTIVITIES CONCERNING ANY OF THE FOREGOING.

12.5 Exclusion of Special Damages. EXCEPT IN THE EVENT OF A PARTY'S (A) WILLFUL MISCONDUCT OR INTENTIONAL BREACH OR (B) GROSS NEGLIGENCE, NEITHER LICENSOR NOR LICENSEE, NOR ANY OF THEIR RESPECTIVE AFFILIATES, LICENSEES, OR SUBLICENSEES, WILL BE LIABLE TO THE OTHER PARTY TO THIS AGREEMENT, ITS AFFILIATES OR ANY OF THEIR LICENSEES OR SUBLICENSEES FOR ANY INJURY TO OR LOSS OF GOODWILL, REPUTATION, BUSINESS, PRODUCTION, CONTRACTS OR OPPORTUNITIES (REGARDLESS OF HOW THESE ARE CLASSIFIED AS DAMAGES), OR FOR ANY INDIRECT, CONSEQUENTIAL, INCIDENTAL, INDIRECT, EXEMPLARY, ENHANCED, SPECIAL OR PUNITIVE DAMAGES OR LOST PROFITS, REVENUES OR ROYALTIES, LOST DATA OR COST OF PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES, WHETHER LIABILITY IS ASSERTED IN CONTRACT, TORT (INCLUDING NEGLIGENCE AND STRICT PRODUCT LIABILITY) CONTRIBUTION OR OTHERWISE, AND IRRESPECTIVE OF WHETHER THAT PARTY OR ANY REPRESENTATIVE OF THAT PARTY HAS BEEN ADVISED OF, OR OTHERWISE MIGHT HAVE ANTICIPATED THE POSSIBILITY OF, ANY SUCH LOSS OR DAMAGE. NOTWITHSTANDING THE FOREGOING, NOTHING IN THIS SECTION 12.5 IS INTENDED TO OR SHALL LIMIT OR RESTRICT (1) THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF ANY PARTY UNDER SECTION 13, OR (2) DAMAGES AVAILABLE FOR A PARTY'S BREACH OF ITS CONFIDENTIALITY OBLIGATIONS UNDER ARTICLE 11.

13. Indemnification.

13.1 Indemnification. Each Party shall indemnify, defend, and hold harmless the other Party and its Affiliates, and each of their respective Representatives, successors, and assigns ("Indemnitees") against all Losses arising out of or resulting from any claim, suit, action, or other proceeding brought by a Third Party that is not otherwise an Indemnitee ("Claims") related to or arising out of or resulting from: (i) a Party's breach of any representation, warranty, covenant, or obligation under this Agreement; (ii) the negligence or willful misconduct of a Party, its Affiliates or their respective Representatives with respect to this Agreement; or (iii) a Party's use of the Licensed Patents or Licensed Know-How, except, in each case, to the extent any such Losses or Claims (x) result from the negligence or willful misconduct of an Indemnitee of the other Party with respect to this Agreement, (y) arise from the breach by the other Party of any representation or warranty or obligation under this Agreement or any other agreement by and between the Parties or their Affiliates and/or (z) are subject to indemnification hereunder by the other Party.

13.2 Indemnification Procedure. A Person entitled to indemnification under this Section 13 (an "Indemnified Party") shall give prompt written notification to the Person from whom indemnification is sought (the "Indemnifying Party") of the commencement of any action, suit or proceeding relating to a Claim for which indemnification may be sought or, if earlier, upon the assertion of any such Claim (it being understood and agreed, however, that the failure by an Indemnified Party to give notice of a Claim as provided in this Section 13.2 shall not relieve the Indemnifying Party of its indemnification obligation under this Agreement except and only to the extent that such Indemnifying Party is actually damaged as a result of such failure to give notice). Within twenty (20) days after delivery of such notification, the Indemnifying Party may, upon written notice thereof to the Indemnified Party, assume control of the defense of such Claim with counsel reasonably satisfactory to the Indemnified Party. If the Indemnifying Party does not assume control of such defense, the Indemnified Party shall control such defense and, without limiting the Indemnifying Party's indemnification obligations, the Indemnifying Party shall reimburse the Indemnified Party for all reasonable costs and expenses, including attorney fees, incurred by the Indemnified Party in defending itself within forty-five (45) days after receipt of any invoice therefor from the Indemnified Party. The Party not controlling such defense may participate therein at its own expense; provided that if the Indemnifying Party assumes control of such defense and the Indemnified Party in good faith concludes, based on advice from counsel, that the Indemnifying Party and the Indemnified Party have conflicting interests with respect to such action, suit, proceeding or Claim, the Indemnifying Party shall be responsible for the reasonable fees and expenses of one counsel to the Indemnified Party in connection therewith. The Party controlling such defense shall keep the other Party advised of the status of such action, suit, proceeding or Claim and the defense thereof and shall consider recommendations made by the other Party with respect thereto. The Indemnified Party shall not agree to any settlement of such action, suit, proceeding or Claim without the prior written consent of the Indemnifying Party, which shall not be unreasonably withheld, delayed or conditioned. The Indemnifying Party shall not agree to any settlement of such action, suit, proceeding or claim or consent to any judgment in respect thereof that does not include a complete and unconditional release of the Indemnified Party from all liability with respect thereto, that imposes any liability or obligation on the Indemnified Party or that acknowledges fault by the Indemnified Party without the prior written consent of the Indemnified Party.

14. Term and Termination.

14.1 Term. This Agreement shall commence on the Effective Date and remain in force until the expiration of the Royalty Term (the "Term"). Upon expiration of the Term, Licensee's rights and licenses with respect to the QPS Products and Services shall survive as fully-paid up, royalty-free, rights and licenses.

14.2 No Termination or Impairment. For the avoidance of doubt, no Party shall have any right to terminate this Agreement for any reason prior to the expiration of the Royalty Term. Each Party will not, by amendment of its organizational or other governing documents or through reorganization, consolidation, merger, dissolution, sale of assets or other voluntary action, avoid or seek to avoid the timely observance or performance of any of the terms of this Agreement, but will at all times in good faith perform its obligations under this Agreement.

14.3 Survival. The rights and obligations of the Parties set forth in this Section 14.3 (Survival) and Section 1 (Definitions), Section 8 (Challenges to Licensed Patents), Section 9 (Enforcement), Section 11(Confidentiality), Section 12.5 (Exclusion of Special Damages), Section 13 (Indemnification), Section 15 (Dispute Resolution), and Section 16 (Miscellaneous), and any right, obligation, or required performance of the Parties in this Agreement which by its express terms or nature and context is intended to survive the Term of this Agreement, shall survive the Term of this Agreement.

15. Dispute Resolution.

15.1 Agreement to Resolve Disputes. Except as otherwise specifically provided in this Agreement, the provisions of this Section 15 shall apply to any dispute, controversy or claim between the Parties arising under this Agreement, including in connection with or related to any right, duty or obligation arising hereunder or the relationship of the Parties hereunder (a "Dispute").

15.2 Negotiated Resolution. The Parties hereby agree to act in good faith and use reasonable efforts to resolve expeditiously any Dispute that may arise from time to time on a mutually acceptable, negotiated basis. In furtherance of the foregoing, the Parties agree to the following procedure:

(a) At the request of any Party from time to time in a written notice to the other Parties, the Parties agree to convene a committee comprised of one or more executive officers designated by Licensor and Licensee. Such officers will meet within ten (10) Business Days of such notice and attempt in good faith to resolve the Dispute.

(b) If the committee is unable to resolve the Dispute within fifteen (15) Business Days of its initial meeting, then any Party, by giving notice to the other Parties, may request that the Dispute be referred for resolution to the President (or similar officer) of Licensee and PHS, respectively. The Presidents shall meet within fifteen (15) Business Days thereafter and shall attempt in good faith to resolve the Dispute. The Parties agree that these dispute resolution procedures will toll the applicable statute of limitations during the time period consumed in complying with this Section 15.2.

15.3 Arbitration. Any Dispute not resolved through the procedures set forth in Section 15.2 above, shall at the request of Licensor or Licensee be determined by binding arbitration. Any arbitration to be conducted in connection with this Agreement shall be administered by the American Arbitration Association ("AAA") in accordance with the provisions of this Section 15 and the Commercial Arbitration Rules of the AAA (the "AAA Rules") in effect as of the commencement of the applicable arbitration proceeding, except to the extent the then-current AAA Rules are inconsistent with the provision of this Section 15.3, in which case the terms hereof shall control. Such arbitration shall be subject to the following additional provisions:

(a) Any arbitration pursuant to this Section 15 shall be conducted in the State of Delaware, unless otherwise agreed by the Parties.

(b) The arbitration shall be conducted by one (1) arbitrator in accordance with the AAA Rules for Expedited Procedures, which arbitrator shall be selected in accordance with the AAA Rules for Expedited Procedures, and which arbitrator shall have had at least ten years' experience in intellectual property licensing transactions and contract disputes.

(c) In connection with any arbitration proceeding: (i) no arbitrator shall have been employed or engaged by any Party hereto; (ii) the arbitrator shall be neutral and independent of the Parties to this Agreement; and (iii) no arbitrator shall be affiliated with any Party's auditors.

(d) The Parties will cooperate in the exchange of documents relevant to any Dispute. Deposition or interrogatory discovery may be conducted only by agreement of the Parties and/or if ordered by the arbitrator. In considering a request for such deposition or interrogatory discovery, the arbitrator shall take into account that the Parties are seeking to avoid protracted discovery in connection with any arbitration proceeding hereunder.

(e) The award of the arbitrator shall be accompanied by a statement of the reasons upon which the award is based. The arbitrator shall apply law governing this Agreement in rendering his or her decision. The arbitrator shall not have the power to modify this Agreement. The arbitrator will have no authority to award punitive or other monetary damages not measured by the prevailing party's actual damages, except as may be required by statute. The arbitrator shall not award consequential damages in any arbitration initiated herein. The fees and costs of the arbitrator shall be borne equally by the Parties. Each Party will be responsible for its own attorney's fees and other costs and expenses, provided that the arbitrator shall be permitted to award the prevailing Party the payment of its reasonable attorneys' fees and court costs from the non-prevailing Party. The decision of the arbitrator shall be binding on the Parties and judgment thereon may be entered in any court, whether federal or state, having jurisdiction over the Parties.

15.4 Limited Court Actions. Notwithstanding anything herein to the contrary, a Party shall have the right to initiate a suit, action or other proceeding to (i) toll any statute of limitations or (ii) seek injunctive relief or other equitable remedy if, in such Party's reasonable discretion, such suit, action or other proceeding is deemed necessary to avoid irreparable damage or preserve the status quo. The institution of any suit, action or other proceeding in accordance with this Section 15.4 does not excuse the Party's obligation to participate in good faith in the other dispute procedures in this Section 15.

16. Miscellaneous.

16.1 Force Majeure. No Party shall be in default hereunder by reason of any failure or delay in the performance of its obligations hereunder, except for Licensee's payment obligations, where such failure or delay is due to any cause beyond its reasonable control, including strikes, labor disputes, civil disturbances, riot, rebellion, invasion, epidemic, hostilities, war, terrorist attack, embargo, natural disaster, acts of God, flood, fire, sabotage, or any other circumstances or causes beyond such Party's reasonable control.

16.2 Further Assurances. Each Party shall, and shall cause their respective Affiliates to, upon the reasonable request, and at the sole cost and expense of the other Parties, promptly execute such documents and take such further actions as may be necessary to give full effect to the terms of this Agreement.

16.3 Independent Contractors. The relationship between the Parties is that of independent contractors. Nothing contained in this Agreement shall be construed as creating any agency, partnership, joint venture, or other form of joint enterprise, employment, or fiduciary relationship between the Parties, and no Party shall have authority to contract for or bind the other Parties in any manner whatsoever.

16.4 No Public Statements. No Party shall issue or release any announcement, statement, press release, or other publicity or marketing materials relating to this Agreement or, unless expressly permitted under this Agreement, otherwise use any other Party's trademarks, service marks, trade names, logos, domain names, or other indicia of source, association, or sponsorship, in each case, without the prior written consent of the other Parties. Notwithstanding the foregoing, Licensor and its Affiliates shall have the right to make such disclosure as it deems necessary or advisable under applicable securities laws, in which event Licensor shall provide Licensee with a copy of such disclosure.

16.5 Notices. All notices, consents, waivers and deliveries under this Agreement must be in writing and will be deemed to have been duly given when: (i) delivered by hand (against receipt); (ii) when received by the addressee, if sent by a nationally recognized overnight delivery service (receipt requested); or (iii) five (5) days after being sent registered or certified mail, return receipt requested, in each case to the appropriate addresses for each Party set forth below (or to such other addresses as a Party may hereafter designate by similar notice in accordance with this Section 16.5 to the other Party); provided, that, if a Party refuses to accept delivery, such notice, consent, waiver or other communication shall be deemed to have been given on the date of such refusal of delivery:

If to Licensor:

PerkinElmer Health Sciences, Inc.
do PerkinElmer, Inc.
940 Winter Street
Waltham, MA 02451
Attention: General Counsel

with a copy to:

Nelson Mullins Riley & Scarborough LLP
One Post Office Square
Boston, MA 02109
Attention: Brian T. Moore

If to Licensee:

Akoya Biosciences, Inc.
1505 O'Brien Drive, Suite A-1
Menlo Park, CA 94025
Attention: Brian McKelligon

with a copy to:

Telegraph Hill Partners
360 Post Street, Suite 601
San Francisco, CA 94108
Attention: Robert G. Shepler

and:

Orrick, Herrington & Sutcliffe LLP
405 Howard Street
San Francisco, CA 94105
Attention: John F. Seegal, Esq.

16.6 Interpretation. For purposes of this Agreement: (i) the words "include," "includes," and "including" shall be deemed to be followed by the words "without limitation"; (ii) the word "or" is not exclusive; and (iii) the words "herein," "hereof," "hereby," "hereto," and "hereunder" refer to this Agreement as a whole. Unless the context otherwise requires, references herein: (x) to Sections and Exhibits refer to the Sections of and Exhibits attached to this Agreement; (y) to an agreement, instrument, or other document means such agreement, instrument or other document as amended, supplemented, and modified from time to time to the extent permitted by the provisions thereof; and (z) to a statute means such statute as amended from time to time and includes any successor legislation thereto and any regulations promulgated thereunder.

16.7 Headings. The captions, titles and headings used in this Agreement are for convenience of reference only, shall not be deemed part of this Agreement and shall not affect its construction or interpretation.

16.8 Entire Agreement. This Agreement, together with all Exhibits and any other documents incorporated herein by reference, constitutes the sole and entire agreement of the Parties to this Agreement with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings and agreements, both written and oral, with respect to such subject matter.

16.9 Assignment. Except as provided in this Section 16.9, this Agreement may not be assigned or otherwise transferred, nor may any right or obligation hereunder be assigned or transferred, by a Party without the prior written consent of the other Parties; provided, however, that, with prior written notice but without such consent, a Party may assign this Agreement and its rights and obligations hereunder (a) in connection with the transfer or sale of all or substantially all of its assets related to the QPS Products and Services that are the subject matter of this Agreement (including in the case of Licensor a transfer or sale of all or substantially all of the Exclusive Licensed Patents), (b) to an Affiliate, or (c) or in the event of a Change of Control of such Party. Any attempted assignment or transfer not in accordance with this Section 16.9 shall be void. Any permitted assignee shall assume all assigned obligations of its assignor under this Agreement. This Agreement is binding upon the permitted successors and assigns of the Parties.

16.10 No Third Party Beneficiaries. This Agreement is for the sole benefit of the Parties hereto and their respective successors and permitted assigns and nothing herein, express or implied, is intended to or shall confer upon any other Person any legal or equitable right, benefit, or remedy of any nature whatsoever, under or by reason of this Agreement.

16.11 Amendment; Modification; Waiver. This Agreement may only be amended, modified, or supplemented by an agreement in writing signed by each Party hereto. No waiver by any Party of any of the provisions hereof shall be effective unless explicitly set forth in writing and signed by the waiving Party. Except as otherwise set forth in this Agreement, no failure to exercise, or delay in exercising, any rights, remedy, power, or privilege arising from this Agreement shall operate or be construed as a waiver thereof., nor shall any single or partial exercise of any right, remedy, power, or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power, or privilege.

16.12 Construction. The Parties have participated jointly in the drafting of this Agreement, and each Party was represented by counsel in the negotiation of this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the Parties and no presumption or burden of proof shall arise favoring or disfavoring any Party by virtue of the authorship of any of the provisions of this Agreement.

16.13 Severability. Any term of this Agreement which would be invalid or unenforceable as written shall be deemed limited in scope and/or duration to the extent necessary to render it enforceable. The determination of any court that any provision is invalid or unenforceable shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity of the offending term or provision in any other situation or in any other jurisdiction.

16.14 Governing Law. THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF DELAWARE WITHOUT GIVING EFFECT TO CONFLICT OF LAWS PRINCIPLES.

16.15 Consent to Jurisdiction. Subject to Section 15 above, any suit, action or other proceeding brought with respect to this Agreement must be brought in any court of competent jurisdiction in the State of Delaware and, by execution and delivery of this Agreement, each Party: (i) accepts, generally and unconditionally, the exclusive jurisdiction of such courts and any related appellate court, and irrevocably agrees to be bound by any judgment rendered thereby in connection with this Agreement; and (ii) irrevocably waives any objection it may now or hereafter have as to the venue of any such suit, action or other proceeding brought in such a court or that such court is an inconvenient forum. THE PARTIES HEREBY WAIVE TRIAL BY JURY IN ANY JUDICIAL PROCEEDING TO WHICH THEY ARE PARTIES INVOLVING, DIRECTLY OR INDIRECTLY, ANY MATTER IN ANY WAY ARISING OUT OF, RELATED TO, OR CONNECTED WITH THIS AGREEMENT.

16.16 Equitable Relief. Each Party acknowledges that a breach by any other Party of this Agreement may cause the non-breaching Party irreparable harm, for which an award of damages would not be adequate compensation and, in the event of such a breach or threatened breach, the non-breaching Party shall be entitled to seek equitable relief, including in the form of a restraining order, orders for preliminary or permanent injunction, specific performance, and any other relief that may be available from any court, and the Parties hereby waive any requirement for the securing or posting of any bond or the showing of actual monetary damages in connection with such relief. These remedies shall not be deemed to be exclusive but shall be in addition to all other remedies available under this Agreement at law or in equity, subject to any express exclusions or limitations in this Agreement to the contrary.

16.17 Attorneys' Fees. In the event that any action, suit, or other legal or administrative proceeding, including under Section 15 above, is instituted or commenced by any Party hereto against the other Parties arising out of or related to this Agreement, the prevailing Parties shall be entitled to recover its reasonable attorneys' fees and court costs from the non-prevailing Parties.

16.18 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which, taken together, shall constitute one and the same instrument. Original signatures hereto may be delivered by facsimile or by electronic transmission in .PDF or .TIF format which shall be deemed originals.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties have executed and delivered this Agreement as of the Effective Date.

PerkinElmer Health Sciences, Inc.

By: /s/ Joel S. Goldberg
Name: Joel S. Goldberg
Title: President

Cambridge Research & Instrumentation, Inc.

By: /s/ Joel S. Goldberg
Name: Joel S. Goldberg
Title: Vice President

VisEn Medical Inc.

By: /s/ John L. Healy
Name: John L. Healy
Title: Secretary and Vice President

Akoya Biosciences, Inc.

By: _____
Name:
Title:

[Signature Page to License and Royalty Agreement]

Exhibit A

Exclusive Licensed Patents

Cambridge Research & Instrumentation, Inc.

[***]
[***]
[***]
[***][***][***][***][***][***][***][***][***][***][***][***][***][***]

Exhibit B

Non-Exclusive Licensed Patents

[***][***][***][***][***][***][***][***][***]

Exhibit 10.12

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED

TRANSITION SERVICES AGREEMENT

This Transition Services Agreement (together with the Service Schedules attached hereto, this "TSA") is made as of September 28, 2018 (the "Effective Date") by and between PerkinElmer Health Sciences, Inc., a Delaware corporation ("Service Provider"), and Akoya Biosciences, Inc., a Delaware corporation (the "Service Recipient"). Service Provider and Service Recipient are each referred to herein individually as a "Party" and collectively, as the "Parties."

RECITALS

WHEREAS, Service Provider, Caliper Life Sciences, Inc., a Delaware corporation, and Service Recipient are parties to that certain Asset Purchase Agreement dated as of the Effective Date (the "Asset Purchase Agreement") pursuant to which Seller has agreed to sell and assign to Buyer, and Buyer has agreed to purchase and assume from Seller, substantially all the assets, and certain specified liabilities, with respect to the QPS Business (as defined in the Asset Purchase Agreement), all as more particularly described in, and subject to the terms of, the Asset Purchase Agreement;

WHEREAS, prior to the Closing (as defined in the Asset Purchase Agreement), the QPS Business received certain services from Service Provider and certain of its Affiliates; and

WHEREAS, Service Recipient desires that certain of these services constituting the Services (as defined below) continue to be provided to the QPS Business after the Closing upon the terms and conditions set forth in this TSA.

WHEREAS, such Services are critical to the continuance of the QPS Business after the Closing, and but for the agreements, covenants and benefits of such Services after the Closing upon the terms and conditions set forth in this TSA, Service Recipient would not have consummated the Closing under the Asset Purchase Agreement.

AGREEMENT

NOW THEREFORE, in consideration of the mutual covenants and agreements contained in this TSA, and intending to be legally bound, and for other good and valuable consideration, the receipt and sufficiency which is hereby acknowledged, the Parties hereto hereby agree as follows:

SECTION 1. Definitions Incorporated. All capitalized terms used but not otherwise defined in this TSA have the meaning ascribed to them in the Asset Purchase Agreement.

SECTION 2. Additional Definitions. Unless the context otherwise requires, the following terms, in their singular or plural forms, used in this TSA shall have the meanings set forth below:

2.1 "EU Privacy Laws" means the General Data Protection Regulation 2016/679 ("GDPR") and any law, statute, declaration, decree, directive, legislative enactment, order, ordinance, regulation, rule or other binding instrument of any EU member state where the Parties have a presence which implements the GDPR and the e-Privacy Directive 2002/58/EC, including for the avoidance of doubt the UK Data Protection Act 2018 and the Privacy and Electronic Communications Regulations, (in each case as amended, consolidated, re-enacted or replaced from time to time);

2.2 "Services" means the services to be provided by Service Provider or an Affiliate of Service Provider to Service Recipient (or an Affiliate of Service Recipient that has a need to receive or utilize the Services for their intended purposes), as described in a Service Schedule.

2.3 "Service Schedule(s)" means the Schedules of Services attached hereto as Annex B, and any such schedule that after the date hereof: (a) amends, restates or supplements such schedule, (b) references this TSA; (c) is signed by each Party; (d) identifies the specific Services to be provided and the prices to be paid by Service Recipient for such Services; and (e) identifies and sets forth any terms and conditions that are unique to the Services described therein.

Other terms are used as defined elsewhere herein.

SECTION 3. Services Provided.

3.1 Agreement to Provide Services. Pursuant to the terms and conditions of this TSA and the Service Schedules, Service Provider shall provide, or shall cause one or more of its Affiliates to provide, the Services described in each Service Schedule to Service Recipient or, as directed by Service Recipient, to any of Service Recipient's Affiliates. Unless otherwise agreed by the Parties in a Service Schedule, each Service will be performed in the location where such Service was performed prior to the Closing. Neither Service Provider nor any of its Affiliates will be required to render any Services in a particular location that would necessitate that Service Provider or any of its Affiliates qualify to do business in any location or jurisdiction other than the current locations and jurisdictions where Service Provider or any such Affiliate, as applicable, does business as of the Effective Date. Service Recipient shall not resell any of the Services to any Person whatsoever and shall not permit the receipt or use of the Services by any Person other than in connection with the conduct of the QPS Business after the Closing. Service Provider acknowledges that the Services are intended for the purposes of providing for the orderly transition of the operation of the QPS Business and the Purchased Assets to the Service Recipient. For the avoidance of doubt, except as set forth in a Service Schedule, neither Service Provider nor any of its Affiliates shall be obligated to provide any other services to Service Recipient or any of its Affiliates.

3.2 Transition Manager and Functional Leads; Resolution of Disputes.

3.2.1 Transition Manager. Each of Service Provider and Service Recipient has named a transition manager (the "Transition Managers") for purposes of managing and overseeing the performance of the obligations of the Parties under this TSA, each as identified on Annex A attached hereto. The Transition Managers shall be the initial points of contact with respect to the day-to-day provision of the Services hereunder, including attempting to resolve any issues that may arise during the performance of the Services before any such dispute may be escalated to the Executive Leadership (as defined below) in accordance with the terms of Section 3.2.3 hereof. The Transition Managers may delegate authority to other Service Provider and Service Recipient personnel (including the Functional Leads (as defined below)) to act as initial points of contact with respect to certain Services or categories of Services as appropriate. To the extent a Party desires to replace its Transition Manager, such Party shall provide prior written notice of any such replacement; it being understood and agreed that Service Provider and Service Recipient shall take all commercially reasonable actions to ensure a qualified representative is promptly appointed to fill such role.

3.2.2 Functional Leads. Service Provider has identified on Annex A attached hereto employees of Service Provider or its Affiliates with the knowledge, experience and expertise in the respective functional areas of the QPS Business necessary to effectuate the transition of people, processes, data, systems and as other aspects of the QPS Business (the "Functional Leads"). Service Provider will provide to Service Recipient reasonable access to the Functional Leads on an on-going, as needed basis during the Term of this TSA. The Functional Leads will liaise with Service Provider's Transition Manager and in consultation with Service Recipient's Transition Manager and during the Term of the TSA be available to the Transition Managers to meet and discuss relevant transition work-streams. The Functional Leads will be notified of their responsibilities hereunder promptly following the Effective Date. To the extent Service Provider desires to replace a Functional Lead, Service Provider shall provide prior written notice of any such replacement; it being understood and agreed that Service Provider shall take all commercially reasonable actions to ensure a qualified representative is promptly appointed to fill such role.

3.2.3 Disputes. In the event of any material dispute between the Parties relating to the Services or this TSA that is not resolved by the Transition Managers, any Transition Manager may escalate the dispute to the Service Provider's senior management designee, who shall initially be Arvind Sundar-Raj an, and Service Recipient's executive leadership designee, who shall initially be Alex Herzick (collectively, the "Executive Leadership"), by delivery of a written notice of escalation with reference to this Section 3.2.3. If the Executive Leadership is unable to resolve the dispute within thirty (30) days of the dispute being escalated to them, then each Party shall be free to pursue such remedies as may be available to such Party on the terms and subject to the provisions of this TSA. The failure of the Transition Managers or the Executive Leadership to resolve a dispute pursuant to this Section 3.2.3 shall not relieve a Party hereto of its obligations hereunder that are not the subject of the dispute.

SECTION 4. Compensation.

4.1 Compensation for Services. Subject to the terms and conditions in this TSA, the compensation to be paid by Service Recipient to Service Provider for each Service during the Transition Term shall be the prices and rates set forth in the applicable Service Schedule for such Service. Except as otherwise set forth in a Service Schedule, for any Service where the price for the Services is expressed as a specified dollar amount per month, if such Services are provided for only a portion of the month, the Services will be deemed provided for a full month for purposes of determining the fees under this TSA, except that in the month of the Effective Termination Date of such Service, such fees shall be prorated as of the Effective Termination Date for such Service.

4.2 Costs and Expenses. Unless otherwise set forth on a Service Schedule, the prices for the Services set forth in the Service Schedules as of the Effective Date are exclusive of any reasonable expenses related to travel (including long-distance and local transportation, accommodation and meal expenses and other incidental, out of pocket expenses) by Service Provider's or its Affiliates' personnel in connection with performing the Services;; provided, however, that to the extent any such expense exceeds $[***], the prior written approval of Service Recipient shall be required. Unless otherwise agreed to and set forth on a Service Schedule, as amended, modified or updated after the date hereof, any (a) third party consultant and service provider fees incurred in connection with the Services; and (b) other out-of-pocket, third party costs for assets or services acquired to provide the Services (all of foregoing in (a) and (b) to be charged by Service Provider to Service Recipient on a straight pass-through basis) shall require the prior written consent of Service Recipient.

4.3 Taxes.

4.3.1 The prices set forth in the Service Schedules are exclusive of taxes. Service Recipient will pay and be liable for any and all sales, service, value added, or similar taxes imposed on, sustained, incurred, levied and measured by: (a) the cost, value or price of Services provided by Service Provider under this TSA; or (b) Service Provider's cost in acquiring property or services used or consumed by Service Provider in providing Services under this TSA (collectively, the "Sales and Service Taxes"); provided, however, Service Recipient shall not be obligated to pay such Sales and Service Taxes if and to the extent that Service Recipient has provided Service Provider any valid exemption certificates or other applicable documentation reasonably satisfactory to Service Provider that would eliminate or reduce the obligation to collect or pay such Sales and Service Taxes. Such Sales and Service Taxes will be payable by Service Recipient to Service Provider in accordance with Section 4.4 or as otherwise mutually agreed in writing by the Parties and under the terms of the applicable Legal Requirement that governs the relevant Sales and Service Taxes.

4.3.2 Each of Service Provider and Service Recipient shall pay and be responsible for all other taxes applicable to each of them, including taxes based on their own respective capital, corporate franchise, income or profits or assets and all applicable taxes relating to their respective employees.

4.3.3 Payments for Services or other amounts under this TSA shall be made net of any required withholding taxes and the amount deducted for withholding taxes shall be treated as paid to Service Provider for all purposes of this TSA. Notwithstanding the foregoing, if Service Provider reasonably believes that a reduced rate of withholding applies or Service Provider is exempt from withholding, then Service Provider will notify Service Recipient and Service Recipient will apply such reduced rate of withholding or no withholding at such time as Service Provider provides Service Recipient with evidence reasonably satisfactory to Service Recipient that a reduced rate of or no withholding is required (and that all necessary administrative provisions or requirements have been completed), including rulings or certificates from, or other correspondence with taxing authorities and tax opinions rendered by qualified persons, to the extent reasonably requested by Service Recipient. Service Recipient shall timely remit any amounts withheld to the appropriate taxing authority and shall provide Service Provider with a receipt or other documentation evidencing such payment, including the amount paid and the applicable taxing authority to which payment was made. Service Recipient shall not be required in any circumstances to pursue any refund of taxes withheld and paid over to a taxing authority; provided, however, that: (a) Service Recipient will, at Service Provider's reasonable request and at Service Provider's expense, assist Service Provider in Service Provider's pursuit of such refund of taxes; and (b) in the event that Service Recipient receives a refund of any amounts previously withheld from payments to Service Provider and remitted, Service Recipient shall promptly surrender such refund to Service Provider.

4.3.4 Each of Service Provider and Service Recipient shall promptly notify the other of any deficiency claim or similar notice by a taxing authority with respect to Sales and Service Taxes or withholding taxes payable under this TSA, and shall provide the other with such information as reasonably requested from time to time, and shall fully cooperate with the Service Provider or Service Recipient, as applicable, in connection with: (a) the reporting of any Sales and Service Taxes or withholding taxes payable pursuant to this TSA; (b) any audit relating to Sales and Service Taxes or withholding taxes pursuant to this TSA; and (c) any assessment, refund, claim or proceeding relating to such Sales and Service Taxes or withholding taxes.

4.4 Terms of Payment. Service Provider will invoice Service Recipient for each Service at the prices and rates set forth in the applicable Service Schedule within thirty (30) days following the end of each calendar month for Services provided in the prior month or on such other invoicing schedule as is set forth in a Service Schedule. The monthly invoice issued by Service Provider and delivered to Service Recipient following the end of each calendar month after Closing shall include amounts, such as Sales and Service Taxes and/or other costs and expenses incurred in such month, that are payable in addition to the prices for the Services. Payment in full shall be made by Service Recipient by wire transfer in immediately available funds (or such other means as the Parties may mutually agree in writing) within thirty (30) days after receipt of an invoice. Amounts not being paid on or before the date required to be paid hereunder shall constitute a material breach of this TSA and shall accrue interest until paid at a rate equal to two percent (2%) above the U.S. Prime Rate, as reported in the Wall Street Journal, Eastern Edition from time-to-time (or the maximum allowed by applicable Legal Requirement, if less), pro-rated for the actual number of days elapsed, accrued from the date such payment was due hereunder until the date of the actual receipt of payment by Service Provider or its designee. In addition, Service Provider may suspend performance of the Services in the event that Service Recipient fails to timely pay undisputed amounts within ten (10) days after receipt of written notice of non-payment from Service Provider; it being understood and agreed that such right to suspend services arises only in connection with undisputed amounts, and to the extent Service Recipient disputes any invoice or portion thereof, the failure to timely pay the disputed amount shall in no event trigger the right of suspension hereunder. All amounts due for Services rendered pursuant to this TSA shall be billed and paid in United States dollars or the applicable currency for such Services set forth on the applicable Service Schedule.

SECTION 5. Term and Termination.

5.1 Term for Services Provided. Unless a shorter period is otherwise set forth in a Service Schedule or the Parties mutually agree to a longer period in accordance with the terms hereof, Service Provider (or its Affiliates) shall provide each of the Services for a period commencing on the Effective Date and ending on the 12-month anniversary of the Effective Date (the "Transition Term"). The term of any Services may be extended by mutual agreement of the Parties in writing (through a written amendment to this TSA entered into by a duly authorized representative of each Party) with respect to one or more of the Services beyond the Transition Term or earlier expiration date for any such Service as set forth in the applicable Service Schedule; provided, however, that such extension shall only apply to the applicable Service for which the Transition Term is extended. For the avoidance of doubt and subject to the foregoing sentence, in no event will Service Provider or any of its Affiliates be required to provide a Service described in a Service Schedule: (a) beyond the shorter specified term for such Service if the applicable Service Schedule provides for a term for such Service that is shorter than the Transition Term: or (b) if there is no such shorter term specified, beyond the Transition Term. The Parties acknowledge and agree that it is their objective to have all Services described in each Service Schedule and all related transition activities completed as soon as commercially practicable.

5.2 Term of TSA. Unless otherwise expressly agreed to by the Parties by amendment of this Section 5.2 in accordance with Section 12.4 hereof, the term of this TSA (the "Term") shall be for a period commencing at 12:01 a.m. Eastern Time on the Effective Date and ending at 11:59 p.m. Eastern Time on the 12-month anniversary of the Effective Date (the "Expiry Date").

5.3 Termination of Individual Services by Service Recipient for Convenience. Service Recipient may, at any time after the Effective Date, terminate any individual Service provided under this TSA on a Service-by-Service basis upon written notice to Service Provider identifying the particular Service (or location) to be terminated and the effective date of termination, which date shall not be later than the end of the applicable expiration date or Service term for such Service set forth in the applicable Service Schedule or earlier than thirty (30) days after Service Provider's receipt of such notice of termination (or such shorter notice period as set forth in a Service Schedule), unless Service Provider otherwise agrees in writing (the "Effective Termination Date"). Notwithstanding the foregoing, Service Recipient shall not be able to terminate any individual Service if Service Provider reasonably demonstrates to the reasonable satisfaction of Service Recipient that any non-terminated Services are dependent upon the provision of the Services that Service Recipient is seeking to terminate. To the extent Service Provider or any of its Affiliates has incurred any out-of-pocket expenses for third party services, equipment, licenses, assets or other resources that are reimbursable by Service Recipient hereunder and Service Provider is committed to pay any such expenses in whole or in part notwithstanding the early termination of the Services to which they relate, then Service Recipient shall reimburse Service Provider for such expenses notwithstanding such early termination; provided, however, that Service Provider shall use reasonable efforts to mitigate and minimize such expenses post-termination. Once Service Recipient has terminated any of the Services, Service Provider shall have no obligation to resume provision of such Services pursuant to this TSA.

5.4 Termination of Agreement. This TSA shall terminate on the earliest to occur of: (a) the Expiry Date; (b) the date on which the provision of all Services have been completed or terminated or been canceled pursuant to Section 5.3; and (c) the date on which this TSA is terminated pursuant to Section 5.5.

5.5 Termination for Cause. If either Party materially breaches any of its obligations under this TSA and such Party does not cure such breach within thirty (30) days after receiving written notice thereof from the non-breaching Party (which notice shall reference this Section 5.5), the non-breaching Party may terminate this TSA, in whole or in part (with respect to the Services to which the breach relates), immediately by providing written notice of termination to the Party in breach. Notwithstanding the foregoing, if Service Recipient fails to pay any amounts for Services provided hereunder when due, and Service Recipient fails to cure its failure to pay such undisputed amounts within ten (10) days of receipt of written notice thereof from Service Provider, Service Provider may terminate this TSA, including the provision of Services pursuant hereto, immediately by providing written notice of termination to Service Recipient. Further, this TSA may be terminated, effective immediately upon written notice, by Service Provider, on the one hand, or by Service Recipient, on the other hand, if the other Party files, or has filed against it, a petition for voluntary or involuntary bankruptcy or pursuant to any other insolvency law or makes or seeks to make a general assignment for the benefit of its creditors or applies for or consents to the appointment of a trustee, receiver or custodian for it or a substantial part of its property.

5.6 Effect of Termination; Survival. In the event of the expiration or any termination of this TSA, Service Provider shall be entitled to all amounts due for the provision of Services rendered prior to the date of expiration or termination and such amounts will be determined in accordance with the prices set forth in the applicable Service Schedule(s) and will be paid by Service Recipient in accordance with the terms in this TSA. The following Sections shall survive the termination or expiration of this TSA: Section 1 and Section 2 (in each case as necessary to interpret any surviving provision hereunder), Section 4 (solely with respect to amounts accrued prior to the termination or expiration of this TSA), this Section 5.6, Section 6.10, Section 8.3, Section 9, Section 11, and Section 12.

SECTION 6. Certain Covenants.

6.1 Reasonable Care. Service Provider shall perform, or cause to be performed, the Services under this TSA: (a) in accordance with the service and quality levels specified in the applicable Service Schedule; or (b) if no service and quality levels are provided in a Service Schedule with respect to a particular Service or aspect of a Service, with the same degree of care as used by Service Provider or its Affiliates in its own affairs, including in the conduct of the QPS Business in the ordinary course of business prior to the Closing. Unless otherwise specified in a Service Schedule or otherwise mutually agreed by the Parties in writing, Services will be performed during Service Provider's or its Affiliates' normal business hours (consistent with past practices).

6.2 Data Protection. In operating the QPS Business, Service Provider and/or Service Provider's Affiliates in the European Economic Area ("EEA") have collected, processed and used personal data about (a) Transferred Employees, and (b) customers and vendors of the QPS Business; and (a) and (b) being jointly referred to as "Personal Data"), and the Personal Data has been acquired by Service Recipient and its Affiliates pursuant to the Asset Purchase Agreement. During the Transition Term, Service Provider and the Service Provider's subcontractors ("Subcontractors") shall act as a commissioned data processor for Service Recipient with respect to the Personal Data, including by: (i) hosting the Personal Data on its IT systems; (ii) at the direction of Service Recipient, granting access to the Personal Data to the Service Recipient and other individuals and/or entities if and to the extent so instructed by Service Recipient in writing ("Designees"); (iii) processing the Personal Data for and on behalf of Service Recipient in accordance with its instructions, including with regard to transfers to countries outside the EEA and ensuring that its personnel (and those of its Subcontractors) authorized to process the Personal Data have committed themselves to confidentiality or are under an appropriate statutory obligation of confidentiality; (iv) implementing appropriate technical and organizational security measures; (v) taking into account the nature of the processing, assist the Service Recipient by appropriate technical and organizational measures, insofar as this is possible, for the fulfilment of the Service Recipient's obligation to respond to requests for exercising the data subject's rights under the EU Privacy Laws; (vi) promptly notify the Service Recipient in writing upon becoming aware of any improper, unauthorized, or unlawful access to, use of, or disclosure of, or any other event which affects the availability, integrity or confidentiality of Personal Data which is processed by the Service Recipient under this TSA; (vi) assisting Service Recipient in ensuring compliance with the obligations to (a) implement appropriate technical and organizational security measures; (b) notify (if required) Personal Data breaches to EU data protection regulators ("Regulators") and/or individuals; and (b) conduct data protection impact assessments; (vii) at the choice of the Service Recipient, delete or return all the Personal Data to the Service Recipient after the end of the provision of services relating to processing, and delete existing copies of the Personal Data unless European Union or Member State law requires storage of the Personal Data; (viii) make available to the Service Recipient all information necessary to demonstrate compliance with the obligations laid down in this Section 6.2 and EU Privacy Laws, and allow for and contribute to audits, including inspections, conducted by the Service Recipient or another auditor mandated by the Service Recipient; and Service Recipient acknowledges that Service Provider will process data in and transfer Personal Data outside the EEA. Notwithstanding anything herein to the contrary, Service Provider and its Affiliates shall not be obligated to comply with instructions of Service Recipient to the extent such instructions conflict with the design and/or operation of Service Provider's IT systems and processes, provided that Service Provider's IT systems and processes are in compliance with EU Privacy Laws, and nothing in this TSA shall limit Service Provider's or Service Provider's Affiliates' ability to process or use personal data of customers and vendors in the operation of their respective businesses. Where Service Provider engages a Subcontractor for carrying out specific processing activities on behalf of the Service Recipient and that Subcontractor fails to fulfil its obligations, Service Provider shall remain fully liable under the EU Privacy Laws to Service Recipient for the performance of that Subcontractor's obligations. Each Party shall ensure compliance with its respective obligations hereunder and under applicable Legal Requirements and EU Privacy Laws as well as with any orders made by competent regulatory authorities with respect to the protection of Personal Data. Service Recipient shall use commercially reasonable efforts to ensure that any Designees accessing Personal Data on behalf of Service Recipient comply with all applicable Legal Requirements. For the avoidance of doubt, in no event shall Service Provider and its Affiliates be liable for any violation of applicable Legal Requirements by any such Designee in connection with the processing and use of Personal Data by such Designee. Service Recipient will accede to, and where necessary cause any such Designee to accede to, the existing controller-to-controller model contract between Service Provider and Service Provider's Affiliates in accordance with Commission Decision 2004/915/EC and use commercially reasonable efforts to enter into any other data transfer agreements necessary for a lawful transfer of Personal Data as contemplated hereunder (including the lawful granting of access) prior to such data transfers taking place.

6.3 Import/Export.

6.3.1 Service Recipient acknowledges that the import, export, sale and distribution of QPS Business products and related technical information may be subject to any U.S. and non-U.S. laws and regulations relating to export controls, sanctions, and imports, including without limitation those regulations maintained by the U.S. Treasury Department's Office of Foreign Assets Control, U.S. Department of Homeland Security, the U.S. Export Administration Regulations ("EAR") maintained by the U.S. Department of Commerce, and similar Legal Requirements to the full extent applicable in all countries (collectively "Trade Laws"). Service Recipient shall, to the extent that Service Recipient would be within its rights in doing so, provide to Service Provider any documentation in Service Recipient's possession to the extent that supply of the documentation to Service Provider is legally necessary or reasonably useful to enable Service Provider to comply with the Trade Laws. With respect to all transactions of the QPS Business for which Service Provider will provide Services pursuant to this TSA, Service Provider shall not be liable to Service Recipient for a violation by the QPS Business of any Trade Laws; except to the extent that Service Provider causes Service Recipient to commit such violation.

6.3.2 Service Provider shall provide support to Service Recipient with regard to QPS Business exports, including supply of requested information and documentation. If for any given export Service Recipient is the Principal Party in Interest and where designated by Service Recipient, Service Provider shall directly or through an authorized freight forwarder transmit required Electronic Export Information via the Automated Export System ("AES") to the U.S. Bureau of Census for such export transactions on Service Recipient's behalf, and for this limited purpose Service Provider shall act as Service Recipient's true and lawful agent; provided that Service Provider's obligation to do so shall be limited to the extent that Service Recipient fails to provide Service Provider with accurate information that Service Provider does not have and that is necessary to complete such AES filings on a timely basis. In such circumstances, Service Recipient shall indemnify Service Provider for any liability that Service Provider incurs due to Service Recipient's supply to Service Provider of such information that is inaccurate.

6.3.3 Service Provider shall provide support to Service Recipient with regard to QPS Business imports, including supply of requested information and documentation. If requested to do so by Service Recipient, Service Provider shall perform the function of Importer of Record in a country in which Service Provider is so permitted to function on behalf of Service Recipient under local law; provided that Service Provider's obligation to do so shall be limited to the extent that Service Recipient fails to provide Service Provider with accurate information that Service Provider does not have and that is necessary to submit complete import/entry declarations. Service Provider will be relying on the accuracy of such information in the transactions in which Service Provider functions as the Importer of Record. To the extent that funds are not provided by the QPS Business customer or another source, Service Recipient shall be responsible for paying (or reimbursing to Service Provider, for transactions for which Service Provider performs the function of Importer of Record) all duties, taxes, levies and fees payable to governmental entities that are applicable to such import transactions. In addition, to the extent that Service Provider functions as the Importer of Record and, as is required by law, pays any Value Added Taxes (VAT), Goods and Services Taxes (GST) or similar taxes upon importation that are creditable upon the resale of the imported articles in-country, Service Recipient shall reimburse Service Provider for the full amount of such taxes actually paid by Service Provider to the extent that such funds are not provided by the QPS Business customer or another source.

6.3.4 Service Provider shall use commercially reasonable means to supply Service Recipient on a timely basis with documentation required to complete the export and/or importation process. Any performance obligation arising under this TSA of the Service Provider is contingent upon the prior receipt by Service Recipient and/or its Affiliates of government authorizations to the extent that any such authorization is legally required to perform and provided Service Provider has reasonably cooperated with Service Recipient with respect to pursuing the authorization. To such extent, Service Provider shall not be liable for any breach, non-performance, or delay in performance resulting from the failure by Service Recipient or its Affiliates to obtain any such authorization.

6.3.5 Notwithstanding the terms of Section 10 of this TSA, Service Recipient agrees to reimburse Service Provider for reasonable out-of-pocket expenses actually incurred by Service Provider for responding to any government-initiated review, investigation or audit related to export and/or import transactions of the QPS Business for which Service Provider provides Services under this TSA. Also notwithstanding the terms of Section 10 of this TSA, Service Recipient shall be liable for any surcharges, penalties or damages assessed or incurred for violations of export, sanctions and/or import-related laws and regulations applicable to transactions of the QPS Business for which Service Provider will provide Services under this TSA, except for violations caused solely by the acts or omissions of Service Provider.

6.3.6 Notwithstanding the foregoing, Service Provider shall not be required to undertake or perform any obligation set forth in this Section 6.3 if Service Provider (or one of its Affiliates) did not undertake or perform the applicable activity prior to Closing and Service Provider shall not be responsible for undertaking or performing any such obligation to a greater degree and extent than, or for incurring any expenses in connection therewith greater than, that undertaken, performed or incurred prior to Closing.

6.4 No Violation of Laws. Neither Service Provider nor its Affiliates (nor third party service providers) shall be required to provide all or any part of any particular Service or Services to the extent that providing such Service or Services would require Service Provider or its Affiliates to violate any applicable Legal Requirements; provided, however, if upon advice of counsel Service Provider determines that certain Services or Services would require Service Provider or its Affiliate to violate applicable Legal Requirements, Service Provider shall promptly provide notice thereof (which notice shall include reasonable detail and basis for Service Provider and its counsel's determination), and upon delivery of notice, Service Provider and Service Recipient shall cooperate in good faith and use all commercially reasonable efforts to agree upon an alternative approach to deliver to Service Recipient substantially similar or comparable Services that would not violate any Legal Requirement.

6.5 Cooperation. It is understood that it will require significant efforts of all Parties to implement this TSA and to ensure performance hereunder at the agreed upon level and on the agreed upon timeframe (subject to all the terms and conditions of this TSA). The Parties will cooperate (acting in good faith) to affect a smooth and orderly transition of the QPS Business by the performance of the Services provided hereunder from Service Provider and its Affiliates to Service Recipient and its Affiliates. Such cooperation shall include the provision of reasonable access to the other Party's personnel and records as shall be reasonably necessary to facilitate the transition of the QPS Business. To the extent a failure of Service Recipient to act in accordance with this Section 6.5 prevents or materially inhibits the provision of a Service hereunder, Service Provider shall deliver notice thereof to Service Recipient (which notice shall contain an appropriate level of specificity), cooperate with Service Recipient in rectifying any such failure to the extent such cooperation of Service Provider is necessary and provide to Service Recipient thirty (30) days from receipt of such notice the opportunity to cure any such failure; whereupon, if the failure continues beyond such thirty (30) day cure period, Service Provider or its Affiliates shall be relieved of its obligation to provide such Service to the extent affected, until the failure has ceased, provided that, the foregoing shall in no way relieve any other obligation of Service Provider hereunder.

6.6 Means of Providing Services.

6.6.1 Service Provider shall provide each Service in accordance with the terms of the corresponding Service Schedule; provided that, except where a Service Schedule expressly identifies specific means and resources for use in connection with the Services, Service Provider shall in good faith determine the means and resources used to provide the Services consistent with the standards of reasonable care set forth in Section 6.1 hereof Without limiting the foregoing, Service Provider or its Affiliates may elect to modify or replace at any time: (a) its policies and procedures; (b) any Affiliates and/or third parties that provide any Services; (c) the location from which any Service is provided; or (d) the intellectual property rights, information technology, products and services used to provide the Services; provided that, in each case, any such modification or replacement shall not adversely affect the Services or the quality thereof in any material respect.

6.6.2 Service Recipient acknowledges that Service Provider may be providing similar services, and/or services that involve the same resources as those used to provide the Services, to its internal organizations, Affiliates and to third parties, and the provision of such similar services shall in no way be deemed to be a breach of Service Provider's obligations hereunder. Service Provider acknowledges that its provision of such services to its internal organizations, its Affiliates and to third parties shall in no way diminish or otherwise materially affect Service Provider's obligations to Service Recipient under this TSA.

6.6.3 Subject to Section 6.1 and any limitations with respect to outages specified in any Service Schedule, Service Provider or its Affiliates may suspend the provision of the Services (or any part thereof), from time to time, to enable the performance of routine or emergency maintenance to the assets used in connection with the provision of the Services that are required to provide the Services; provided that: (a) Service Provider shall use commercially reasonable efforts to perform such routine maintenance outside of the normal business hours of Service Recipient and in accordance with the terms of the applicable Service Schedule; (b) Service Provider shall provide Service Recipient with reasonable prior notice of such suspension and the anticipated duration of the suspension, in each case to the extent practicable; and (c) Service Provider shall use commercially reasonable efforts to carry out the applicable maintenance and resume the provision of the relevant Services as soon as reasonably practicable.

6.7 Authorized Service Providers. Service Provider represents and warrants that, as of the Effective Date, the prices set forth in the Service Schedules are inclusive of all third party costs for assets or services necessary to deliver such Services to Service Recipient in accordance with this Agreement. Except as otherwise specified in a Service Schedule with respect to the Services under such Service Schedule, Service Provider or any of its Affiliates may, as it deems necessary or appropriate in providing the Services: (a) use the personnel of Service Provider or its Affiliates (it being understood that such personnel can perform the Services on behalf of Service Provider or its Affiliates on a full-time or part-time basis, as determined by Service Provider or its Affiliates in accordance with the obligations under this TSA relating to the provision of the Services); or (b) employ the services of third parties who are in the business of providing such Services; *provided*, *however*, regardless of whether the Service Provider or its Affiliates employs employees or engages third parties to perform the Services on behalf of Service Provider, as related to Service Recipient, Service Provider affirms that it is and remains ultimately responsible or such Services rendered hereunder. In performing the Services, employees and representatives of Service Provider and its Affiliates shall, as between the Parties, be under the direction, control and supervision of Service Provider or its Affiliates (and not Service Recipient) and, as between the Parties, Service Provider or its Affiliates shall have the sole right and obligation to exercise all authority and control with respect to the employment (including termination of employment), assignment and compensation of such employees and representatives. Service Recipient acknowledges and agrees that it has no right hereunder to require that Service Provider or its Affiliates perform the Services hereunder with specifically identified employees or third parties and that the assignment of employees or third parties to perform such Services shall be determined in the sole discretion of Service Provider.

6.8 Relationship of the Parties. Nothing contained in this TSA shall be construed as creating a partnership, joint venture, agency, trust or other association of any kind among or between the Parties, each Party being individually responsible only for its obligations as set forth in this TSA. Service Provider and its Affiliates shall provide the Services hereunder in the capacity of an independent contractor and not as an employee, agent or joint venture counterparty of Service Recipient. Without limiting the foregoing, neither Party shall have any power or authority to bind the other Party to any contract, undertaking or other engagement with any third party.

6.9 Treatment of Employees.

6.9.1 Employees of Service Recipient involved in the receipt of the Services shall remain as the employees of Service Recipient and Service Recipient shall be solely responsible for the payment and provision of all wages, bonuses, commissions and employee benefit plans, programs or arrangements relating to such employees, and the withholding and payment of all applicable taxes relating to such employees.

6.9.2 Employees of Service Provider and its Affiliates involved in the provision and administration of the Services shall remain as the employees of Service Provider and its Affiliates and Service Provider and its Affiliates shall be solely responsible for the payment and provision of all wages, bonuses, commissions and employee benefit plans, programs or arrangements relating to such employees, and the withholding and payment of all applicable taxes relating to such employees.

6.10 Non-Solicitation of Employees. For a period of three (3) years from and after the Effective Date, Service Recipient shall not, and it shall cause its Affiliates not to, without the express written consent of Service Provider, directly or indirectly, solicit any employees of the Service Provider or its Affiliates involved in providing or receiving the Services (other than the Business Employees), in each case, to: (a) leave the employment of Service Provider or its Affiliates; or (b) violate the terms of their employment contracts, or any employment arrangements, with Service Provider or its Affiliates, in all such cases in order to become an employee of Service Recipient or any of its Affiliates; provided, however, that nothing in this Section 6.10 shall restrict or preclude Service Recipient or its Affiliates from making generalized searches for and hiring employees by the use of advertisements in the media (including trade media) or by engaging search firms that are not instructed to solicit any employees of Service Provider or its Affiliates to engage in searches.

6.11 No Violation of Third Party Agreements. Service Provider represents and warrants to the best of its knowledge that the provision of the Services set forth on the Service Schedules does not violate any third party agreement and no third party consent, authorization or approval is required or necessary for Service Provider or its Affiliates to provide the Services set forth on the Service Schedules. If after the date hereof the Parties agree to amend, modify or update the Services Schedules, and Service Provider reasonably believes that the provision of any Services set forth on such amended, modified or updated Services Schedules will result in a violation of any third party agreement or that a third party's consent, authorization or approval is necessary to provide the Services, then Service Provider will promptly notify Service Recipient and then (i) the Parties shall cooperate in good faith to procure for Service Recipient, at Service Recipient's cost and expense, any applicable licenses, enter into any appropriate agreement or obtain the necessary consent, authorization or approval in order to allow the Services to be provided in accordance with the terms set forth herein, or (ii) Service Recipient may elect to abandon or terminate the Services requested on any such amended, modified or updated Services Schedules. All costs incurred as a result of the cooperation of the Parties pursuant to the immediately preceding sentence shall be borne by Service Recipient.

6.12 Information Provided by Service Recipient. Service Recipient will provide (or will cause to be provided) to Service Provider complete and accurate data and information to the extent necessary for Service Provider or its Affiliates to provide the Services. Service Provider and its Affiliates may rely on the completeness and accuracy of such data and information in connection with the provision of the Services to Service Recipient. Neither Service Provider nor its Affiliates will be liable or responsible for any failure to provide a Service in compliance with this TSA as a result of such data or information provided by Service Recipient being incomplete or inaccurate and Service Recipient will be responsible and liable therefor; provided, however, to the extent Service Provider becomes aware that the data and information furnished by Service Recipient is either incomplete or inaccurate, Service Provider shall or shall cause its Affiliate to promptly notify Service Recipient of any such issues with the data and information.

SECTION 7. Force Majeure. Neither Party nor any of its Affiliates (nor any Person acting on its or their behalf) shall bear any responsibility or liability for any losses arising out of any delay, inability to perform or interruption of its performance of obligations under this TSA due to any acts or omissions of the other Party or for events beyond the reasonable control of such Party or its Affiliates (or any Person acting on its or their behalf), including acts of God, acts of governmental authority, acts of the public enemy or due to terrorism, war, riot, flood, civil commotion, insurrection, labor difficulty, severe or adverse weather conditions, lack of or shortage of electrical power, malfunctions of equipment or software programs, or any other cause beyond the reasonable control of such Party or its Affiliates or its or their third party service providers whose performance is affected by any of the foregoing (hereinafter referred to as a "Force Majeure Event"). In such event, the obligations hereunder of such Party in providing the impacted Service or performing its obligations under this TSA, and the obligations of Service Recipient to pay for any such Service, shall be postponed for such time as its performance is suspended or delayed on account thereof but only to the extent that the Force Majeure Event prevents such Party or its Affiliates from performing its duties and obligations hereunder or makes such performance commercially unreasonable. During the duration of the Force Majeure Event, the affected Party shall use all commercially reasonable efforts to avoid or remove such Force Majeure Event and shall use all commercially reasonable efforts to resume its performance under this TSA with the least practicable delay. Any deadline or time for performance which falls due during or subsequent to the occurrence of a Force Majeure Event shall be automatically extended for a period of time equal to the period of such Force Majeure Event, and the term of the impacted Service shall be correspondingly extended.

SECTION 8. Representations and Warranties.

8.1 Authorization. Each Party represents and warrants that: (a) it has the requisite power and authority to execute and deliver this TSA and to perform the obligations hereunder, specifically, in the case of Service Provider, to perform the Services; (b) all corporate action on the part of such Party necessary to approve or to authorize the execution and delivery of this TSA and the performance of the Services and the other transactions contemplated hereby to be performed by it has been duly taken; and (c) this TSA is a valid and binding obligation of such Party, enforceable in accordance with its terms, subject to the effect of principles of equity and the applicable bankruptcy, insolvency or other similar laws, now or hereafter in effect, affecting creditors' rights generally and other customary qualifications.

8.2 Compliance with Laws. Subject to the terms of Section 6.3.1, each Party represents and warrants that it shall perform its obligations under this TSA in a manner that complies with all applicable Legal Requirements in effect as of the Effective Date. In the event of a change in Legal Requirements after the Effective Date, the terms in Section 6.3.1 shall apply.

8.3 DISCLAIMER. EXCEPT AS EXPRESSLY SET FORTH HEREIN OR THE ASSET PURCHASE AGREEMENT, SERVICE PROVIDER MAKES NO REPRESENTATIONS OR WARRANTIES IN RESPECT OF THE SERVICES OR ANY ITEMS TO BE DELIVERED OR PROVIDED TO SERVICE RECIPIENT OF ANY KIND, NATURE OR DESCRIPTION, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OR ARISING FROM A COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE, OR TRADE PRACTICE, AND SERVICE PROVIDER HEREBY DISCLAIMS THE SAME.

SECTION 9. Indemnification.

9.1 Service Provider shall defend, indemnify and hold harmless Service Recipient and its Affiliates, and its and their respective shareholders, directors, partners, officers, employees and agents, against any third-party claims arising from or relating to material breach by Service Provider of its obligations under this TSA. The foregoing indemnification obligations shall not apply in each case to the extent any claim is a direct result of: (a) the gross negligence or willful misconduct of Service Recipient or any of its Affiliates; (b) a breach by Service Recipient of a representation, warranty, covenant or obligation hereunder; or (c) any matter for which Service Recipient is obligated to indemnify Service Provider pursuant to Section 9.2 below. If Service Recipient receives notice or knowledge of a claim as described in this Section 9.1, it shall promptly notify Service Provider in writing and give' Service Provider all necessary information and assistance, and the exclusive authority to evaluate and settle such claim; provided, however, Service Provider may not settle such claim in a manner that would have an adverse impact on the business of Service Recipient without receiving Service Recipient's prior written consent.

9.2 Service Recipient shall defend, indemnify and hold harmless Service Provider and its Affiliates, and its and their respective shareholders, directors, partners, officers, employees and agents, against any third-party claims arising from or relating to material breach by Service Recipient of its obligations under this TSA. The foregoing indemnification obligations shall not apply in each case to the extent any claim is a direct result of: (a) the gross negligence or willful misconduct of Service Provider, any of its Affiliates or any third party service provider; (ii) a breach by Service Provider of a representation, warranty, covenant or obligation hereunder; or (iii) any matter for which Service Provider is obligated to indemnify Service Recipient pursuant to Section 9.1 above. If Service Provider receives notice or knowledge of a claim as described in this Section 9.2, it shall promptly notify Service Recipient in writing and give Service Recipient all necessary information and assistance, and the exclusive authority to evaluate and settle such claim; provided, however, Service Recipient may not settle such claim in a manner that would have an adverse impact on the business of Service Provider without receiving Service Provider's prior written consent.

SECTION 10. Limitation on Liability.

10.1 EXCLUSION OF CERTAIN DAMAGES. TO THE FULLEST EXTENT PERMITTED BY LAW, NO PARTY SHALL BE LIABLE TO OR OTHERWISE RESPONSIBLE TO ANY OTHER PARTY HERETO, ANY AFFILIATE OF ANY OTHER PARTY HERETO OR ANY OTHER PERSON FOR ANY INJURY TO OR LOSS OF GOODWILL, REPUTATION, BUSINESS, PRODUCTION, REVENUES, PROFITS, ANTICIPATED PROFITS, CONTRACTS, OR OPPORTUNITIES (REGARDLESS OF HOW THESE ARE CLASSIFIED AS DAMAGES) OR FOR ANY INCIDENTAL, SPECIAL, CONSEQUENTIAL, INDIRECT, EXEMPLARY, ENHANCED OR PUNITIVE DAMAGES THAT ARISE OUT OF OR RELATE TO THIS TSA OR THE PERFORMANCE OR BREACH HEREOF, WHETHER SUCH DAMAGES OR OTHER RELIEF ARE SOUGHT BASED ON BREACH OF CONTRACT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER LEGAL OR EQUITABLE THEORY AND WHETHER OR NOT THE PARTY WAS AWARE OR ADVISED OF THE POSSIBILITY OF SUCH DAMAGES AND NOTWITHSTANDING THE FAILURE OF ANY AGREED OR OTHER REMEDY OF ITS ESSENTIAL PURPOSE. THE FOREGOING SHALL NOT APPLY TO (A) DAMAGES RESULTING FROM A PARTY'S GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, OR (B) TO THE EXTENT ANY SUCH DAMAGES ARE PAID TO A THIRD PARTY IN CONNECTION WITH A THIRD PARTY CLAIM WHICH IS SUBJECT TO THE PARTIES' INDEMNIFICATION OBLIGATIONS HEREUNDER.

10.2 LIMITATION OF LIABILITY. IN NO EVENT WILL THE TOTAL, CUMULATIVE, AGGREGATE LIABILITY OF SERVICE PROVIDER, WHETHER BASED UPON AN ACTION OR CLAIM IN CONTRACT, TORT (INCLUDING NEGLIGENCE), WARRANTY, MISREPRESENTATION, EQUITY OR OTHERWISE, EXCEED THE AMOUNTS PAID OR PAYABLE BY SERVICE RECIPIENT TO SERVICE PROVIDER FOR THE SERVICES PROVIDED DURING THE TERM OF THIS TSA. THE FOREGOING SHALL NOT APPLY TO SERVICE PROVIDER'S GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OR TO THE EXTENT ANY SUCH DAMAGES ARE PAID TO A THIRD PARTY (WHO IS NOT AN AFFILIATE OF SERVICE RECIPIENT) IN CONNECTION WITH A THIRD PARTY CLAIM.

SECTION 11. Confidentiality.

11.1 Duty of Confidentiality. With respect to any non-public information disclosed by a Party (or its Affiliates or representatives) (the "Disclosing Party") to the other Party (or its Affiliates or representatives) (the "Receiving Party") for the purpose of this TSA or otherwise accessible to such Receiving Party during the performance hereunder which non-public information is either marked or otherwise identified as confidential or proprietary or would reasonably be considered confidential or proprietary in light of the nature of the information (collectively, the "Confidential Information"), the Receiving Party agrees that it will keep such Confidential Information confidential, using at least the same degree of care used to protect its own confidential or proprietary information, but not less than reasonable care, to prevent the disclosure or accessibility to others of the Disclosing Party's Confidential Information and the Receiving Party will use the Disclosing Party's Confidential Information only for the purpose of performing its obligations under this TSA. The Receiving Party shall limit dissemination of and access to the Disclosing Party's Confidential Information to only such of its Affiliates, advisers, employees, agents or contractors (including, in the case of Service Provider, any third party engaged to provide the Services hereunder) or consultants who have a need to know for the purpose of performing such Party's obligations under this TSA, provided that any third party to which Confidential Information is provided by a Receiving Party is subject to confidentiality obligations with respect to such Confidential Information at least as protective as the obligations set forth herein.

11.2 Exclusions. Specifically excluded from the foregoing obligations is any and all information that the Receiving Party can show: (a) is already known to the Receiving Party at the time of disclosure and is not subject to a confidentiality obligation or thereafter is independently developed by the Receiving Party without breach of this TSA; (b) is already in the public domain at the time of disclosure, or thereafter becomes publicly known other than as the result of a breach by the Receiving Party of its obligations under this TSA; or (c) is rightfully received from a third party without breach of this TSA.

11.3 Required Disclosures. If, upon advice of counsel, any Disclosing Party Confidential Information must be produced by the Receiving Party as a matter of law, then the Receiving Party shall promptly notify the Disclosing Party and, insofar as is permissible and reasonably practicable without placing the Receiving Party under penalty of law, give the Disclosing Party an opportunity to appear and to object to such production before producing the requested information.

11.4 Return of Confidential Information. Upon the termination or expiration of this TSA, each Party, as a Receiving Party, shall, at the option and written request of the other Party, as a Disclosing Party, return to such Disclosing Party all Confidential Information of such Disclosing Party or destroy such Confidential Information and provide a written certification of destruction with respect thereto to such Disclosing Party.

SECTION 12. Miscellaneous.

12.1 No Public Statements. Unless expressly permitted under this TSA or any Service Schedule, neither Party shall issue or release any announcement, statement, press release, or other publicity or marketing materials relating to this TSA or otherwise use the other Party's trademarks, service marks, trade names, logos, domain names, or other indicia of source, association, or sponsorship, in each case, without the prior written consent of the other Party. Notwithstanding the foregoing, Service Provider and its Affiliates and Service Recipient and its Affiliates shall have the right to make such disclosure as it deems necessary or advisable under applicable securities laws, in which event Service Provider or Service Recipient, as the case may be, shall provide the other Party with a copy of such disclosure.

12.2 Notices. All notices, consents, waivers and deliveries under this TSA must be in writing and will be deemed to have been duly given when: (i) delivered by hand (against receipt); (ii) when received by the addressee, if sent by a nationally recognized overnight delivery service (receipt requested); or (iii) five (5) days after being sent registered or certified mail, return receipt requested, in each case to the appropriate addresses for each Party set forth below (or to such other addresses as a Party may hereafter designate by similar notice in accordance with this Section 12.2 to the other Party)); provided, that, if a Party refuses to accept delivery, such notice, consent, waiver or other communication shall be deemed to have been given on the date of such refusal of delivery:

If to Service Provider:	PerkinElmer Health Sciences, Inc. PerkinElmer, Inc. 940 Winter Street Waltham, MA 02451 Attention: General Counsel
with a copy to:	Nelson Mullins Riley & Scarborough LLP One Post Office Square Boston, MA 02109 Attention: Brian T. Moore
If to Service Recipient:	Akoya Biosciences, Inc. 1505 O'Brien Drive, Suite A-1 Menlo Park, CA 94025 Attention: Brian McKelligon
with a copy to:	Telegraph Hill Partners 360 Post Street, Suite 601 San Francisco, CA 94108 Attention: Robert G. Shepler and Orrick, Herrington & Sutcliffe LLP 405 Howard Street San Francisco, CA 94105 Attention: John F. Seegal, Esq.

12.3 Entire Agreement. Except for those matters provided for in the Asset Purchase Agreement or the other agreements contemplated therein, this TSA (including the Service Schedules) sets forth the entire agreement of the Parties with respect to its subject matter. The Service Schedules to this TSA shall be deemed incorporated in this TSA and shall form a part of it.

12.4 Amendments and Waivers. No amendment or waiver of any provision of this TSA shall be valid unless in writing and signed by the Parties hereto. No waiver by any Party of any default, misrepresentation, or breach of warranty or covenant hereunder, whether intentional or not, shall be deemed to extend to any prior or subsequent default, misrepresentation, or breach of warranty or covenant hereunder or affect in any way any rights arising by virtue of any prior or subsequent such occurrence.

12.5 Severability. Any term of this Agreement which would be invalid or unenforceable as written shall be deemed limited in scope and/or duration to the extent necessary to render it enforceable. The determination of any court that any provision is invalid or unenforceable shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity of the offending term or provision in any other situation or in any other jurisdiction.

12.6 Governing Law. THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF DELAWARE WITHOUT GIVING EFFECT TO CONFLICT OF LAWS PRINCIPLES.

12.7 Consent to Jurisdiction. Any action, suit, or other legal proceeding brought with respect to this Agreement must be brought in any court of competent jurisdiction in the State of Delaware and, by execution and delivery of this Agreement, each Party: (i) accepts, generally and unconditionally, the exclusive jurisdiction of such courts and any related appellate court, and irrevocably agrees to be bound by any judgment rendered thereby in connection with this Agreement; and (ii) irrevocably waives any objection it may now or hereafter have as to the venue of any such suit, action or proceeding brought in such a court or that such court is an inconvenient forum. THE PARTIES HEREBY WAIVE TRIAL BY JURY IN ANY JUDICIAL PROCEEDING TO WHICH THEY ARE PARTIES INVOLVING, DIRECTLY OR INDIRECTLY, ANY MATTER IN ANY WAY ARISING OUT OF, RELATED TO, OR CONNECTED WITH THIS AGREEMENT.

12.8 Interpretation. Unless otherwise indicated to the contrary in this TSA by the context or use thereof: (a) the words, “herein,” “hereto,” “hereof’ and words of similar import refer to this TSA as a whole and not to any particular Section or paragraph hereof; (b) words importing the masculine gender shall also include the feminine and neutral genders, and vice versa; (c) the word “including” (and its correlatives) means “including without limitation”; (d) all statements of or references to dollar amounts in this TSA are to the lawful currency of the United States of America; (e) to an agreement, instrument, or other document means such agreement, instrument or other document as amended, supplemented, and modified from time to time to the extent permitted by the provisions thereof; and (f) to a statute means such statute as amended from time to time and includes any successor legislation thereto and any regulations promulgated thereunder.

12.9 Construction. The Parties have participated jointly in the drafting of this TSA, and each Party was represented by counsel in the negotiation of this TSA. In the event an ambiguity or question of intent or interpretation arises, this TSA shall be construed as if drafted jointly by the Parties and no presumption or burden of proof shall arise favoring or disfavoring any Party by virtue of the authorship of any of the provisions of this TSA. The Parties agree that any language from prior drafts of this TSA, to the extent not included in the definitive version of this TSA executed by the Parties hereto, shall not be deemed to reflect the intention of any Party hereto with respect to the transactions contemplated hereby.

12.10 Counterpart Execution. This TSA may be executed in counterparts with the same effect as if the Parties had signed the same document. Such counterparts shall be construed together and shall constitute one and the same instrument, notwithstanding that the Parties are not signatories to the original or the same instrument, or that signature pages from different counterparts are combined. The signature of any Party to one counterpart shall be deemed to be a signature to and may be appended to any other counterpart.

12.11 Successors and Assigns. Neither Service Recipient nor Service Provider shall assign or otherwise transfer this TSA, whether voluntarily, involuntarily, by operation of law, or otherwise, without the other Party's prior written consent, which consent may be given or withheld in its sole discretion. For purposes of the preceding sentence, and without limiting its generality, any merger, consolidation, or reorganization involving a Party (regardless of whether such Party is a surviving or disappearing entity) shall be deemed to be an assignment or transfer of this TSA for which the other Party's prior written consent is required. Any purported assignment or transfer in violation of this Section 12.11 is void.

12.12 Attorneys' Fees. In the event that any action, suit, or other legal or administrative proceeding is instituted or commenced by either Party hereto against the other Party arising out of or related to this Agreement, the prevailing party shall be entitled to recover its reasonable attorneys' fees and court costs from the non-prevailing party.

12.13 No Third Party Rights. The provisions of this TSA are intended to bind the Parties to each other and are not intended and do not create rights or obligations in any other Person, including any employee of the QPS Business, the Service Recipient or Service Provider, and no Person is intended to be or is a third party beneficiary of any of the provisions of this TSA. Notwithstanding the foregoing, the Persons that are indemnified pursuant to Section 9 shall be third party beneficiaries for purposes of Section 9.

12.14 Asset Purchase Agreement. The Parties hereby acknowledge and agree that nothing in this TSA (including any breach hereof) shall affect any obligation of any Party under the Asset Purchase Agreement.

[*SIGNATURE PAGES FOLLOW*]

IN WITNESS WHEREOF, the Parties have executed and delivered this TSA as of the Effective Date.

SERVICE PROVIDER:
PERKINELMER HEALTH SCIENCES, INC.

By: */s/ Joel S. Goldberg*
Name: Joel S. Goldberg
Title: President

SERVICE RECEIPIENT:
AKOYA BIOSCIENCES, INC.

By: _____
Name:
Title:

ANNEX A

TRANSITION MANAGER

Service Provider Transition Manager: To be assigned within one (1) week of the Closing Date

Service Recipient Transition Manager: Seth Benson

FUNCTIONAL LEADS

Function	Functional Lead Name and Contact Information
Instrument Manufacturing	Anthony Catalano Phone No.: (617) 350-9075 Email: Anthony.Catalano@perkinelmer.corn
Reagent Manufacturing	Linda Meehan Phone No.: Email: Linda.Meehan@perkinelmer.com
Hopkinton Office and Facility Management	Anthony Catalano Phone No.: (617) 350-9075 Email: Anthony.Catalano@perkinelmer.corn
IT Services (Systems and Network Administration)	Pierre Domaine Phone No.: (774) 278-2608 Email: Pierre.Domain@perkinelmer.com
Commercial Operations	Eric Lally Phone No.: (508) 589-7458 Email: Eric.Lally@perkinelmer.com
Distribution (US)	Arvind Sundar-Rajan (Interim)* Phone No.: (781) 663-5808 Email: Arvind.Sundar-Rajan@perkinelmer.com
Distribution (EMEA)	Arvind Sundar-Rajan (Interim)* Phone No.: (781) 663-5808 Email: Arvind.Sundar-Rajan@perkinelmer.corn
Distribution (APAC)	Arvind Sundar-Rajan (Interim)* Phone No.: (781) 663-5808 Email: Arvind.Sundar-Rajan@perkinelmer.com

*Parties agree that the interim Functional Lead will be replaced with the permanent Functional Lead within one week following the Effective Date.

ANNEX B

SERVICE SCHEDULES

See Attached

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

FIRST AMENDMENT TO THE TRANSITION SERVICES AGREEMENT

This First Amendment (the "Amendment"), effective as of September 27, 2019 (the "Amendment Effective Date"), by and between PerkinElmer Health Sciences, Inc., a Delaware corporation ("PKI"), and Akoya Biosciences, Inc., a Delaware corporation (the "Akoya"), amends that certain Transition Services Agreement between PKI and Akoya dated September 28, 2018 (the "TSA").

The Parties hereby agree as follows:

1. Definitions. Capitalized terms used but not otherwise defined in this Amendment shall have the meanings ascribed to them in the TSA.

2. General Extension of Term. Section 5.2 of the TSA is hereby amended by deleting the phrase "12-month anniversary" therein and replacing it with "15-month anniversary."

3. Lab and Office Space. The Service Schedule entitled "Project Vega: Transition Services Agreement" ("Master Service Schedule") is hereby amended by deleting the phrase "12 months" in each of rows RE-01 and RE-02 therein (in each case, under the column entitled "Duration") and replacing it, in each case, with "through October 31, 2019."

4. APAC Distribution.

    a. The Master Service Schedule is hereby amended by deleting the phrase "12 months; cancellable with 15 days' notice" in row EMP-09 therein (under the column entitled "Duration") and replacing it with "15 months, with no right of cancellation."

    b. In the Service Schedule entitled "Service Schedule for Interim Distribution Services" (the "Distribution Agreement"), the section entitled "Maximum Period for the Provision of the Services" is hereby amended by deleting the phrase "APAC: twelve months" therein and replacing it with "APAC: fifteen months."

    c. Akoya and PKI shall work together in good faith to agree upon a process and pricing for Akoya to supply service parts to PKI or its customers in the APAC region for the purpose of enabling PKI to perform the activities described in row SER-03 of the Master Service Schedule after the termination of Services under the Service Schedule entitled "Service Schedule for Interim Contract Manufacturer Agreement (CMA) Services: Instruments and Service Parts" ("Instrument CMA").

d. Akoya shall pay PKI a royalty equal to [***]% of Akoya APAC Net Sales. "Akoya APAC Net Sales" means, for any period, the amount actually received by Akoya in such period for any sale of QPS Products (as defined in the Distribution Agreement) that is (x) made by Akoya to PKI or its Affiliate under the Distribution Agreement for distribution in the APAC region and (y) recognized by Akoya during the Royalty Period, less deductions for (i) returns, refunds or credits given or made, (ii) taxes, excises, duties or other charges imposed by any Governmental Body and included in such amount actually received by Akoya, and (iii) freight or other shipping charges included in such amount actually received by Akoya. "Royalty Period" means the period commencing on the September 28, 2019 and ending on the termination of Services for the APAC region under the Distribution Agreement. Such royalty shall be paid on a quarterly basis, in each case within thirty (30) days after the end of the quarter in which the applicable Akoya APAC Net Sales are actually received by Akoya.

e. From the date of termination of Services under the Instrument CMA until the date of termination of Services under the Distribution Agreement (or such earlier date as determined by Akoya in its sole discretion, or such later date as reasonably requested by Akoya and acceptable to PKI), PKI shall store at its Hopkinton Distribution Center, on behalf of Akoya, in a manner consistent with PKI's practices and service levels under the Instrument CMA, such quantities of finished goods QPS Instruments (as defined in the Instrument CMA) intended for distribution in the APAC region as reasonably requested by Akoya, in exchange for a total storage fee of $[***] per month, which fee shall be (i) appropriately prorated for the last month of storage and (ii) invoiced and paid in accordance with Section 4.4 of the TSA.

5. Instrument CMA. In the Instrument CMA:

a. the section entitled "Planned Exit Strategy" is hereby amended by deleting the third bullet point therein and replacing it with the following:

"Upon termination of the Services under this Service Schedule, all QPS Instrument-related Inventory, including all raw materials, work in process (WIP), replacement parts, excess and obsolete inventory, supplies and finished goods QPS Instruments inventory, and all Service Parts, in the possession or control of PerkinElmer, and not already owned by Akoya, will be purchased by Akoya at a purchase price equal to (i) in the case of any finished goods QPS Instruments or Service Parts, the applicable price set forth in Exhibit B, and (ii) in the case of any raw materials, works in process (WIP), replacement parts, excess and obsolete inventory, or supplies, at PerkinElmer's standard costs for such items as established and reflected in PerkinElmer's system.";

6. Reagents CMA. In the Service Schedule entitled "Service Schedule for Interim Contract Manufacturer Agreement (CMA) Services: Reagents" ("Reagents CMA"):

a. the section entitled "Service Term" is hereby amended by deleting the phrase "One (1) year from effective date of this Service Schedule" to "From the effective date of this Service Schedule to December 31, 2019";

b. adding the following immediately after the "QPS Reagents Finished Goods Inventory Sale For each Distribution Region then not utilizing PerkinElmer distribution" subsection:

"Last Time Buy QPS Reagents

- At any time, and from time to time, prior to or on December 13, 2019, Akoya may place orders for delivery of reagents listed in Exhibit D ("Last Time Buy QPS Reagents"), specifying the applicable products, quantities, delivery dates and destination. PerkinElmer shall accept and fulfill any purchase order that is consistent with the quantity of the applicable Last Time Buy QPS Reagent(s) set forth in Exhibit D.
- Together with any delivery of Last Time Buy QPS Reagents, unless posted to PerkinElmer's external web site, PerkinElmer shall provide Akoya with its standard documentation for such Last Time Buy QPS Reagents, including a certificate of analysis if available.
- Last Time Buy QPS Reagents shall be sold to Akoya in accordance with the pricing set forth in Exhibit D.";

c. the section entitled "Product Warranty" is hereby amended by inserting the following at the end of such section: "For clarity, for any Last Time Buy QPS Reagents, the product warranty includes a warranty that such Last Time Buy QPS Reagents conform to their applicable specifications upon delivery.";

d. the section entitled "Planned Exit Strategy" is hereby amended by deleting the fourth bullet point therein and replacing it with the following:

"Upon termination of the Services under this Service Schedule, all QPS Reagents-related Inventory, including all raw materials, work in process (WIP), replacement parts, excess and obsolete inventory, supplies and finished goods QPS Reagents inventory, in the possession or control of PerkinElmer, and not already owned by Akoya, will be purchased by Akoya at a purchase price equal to (i) in the case of any finished goods QPS Reagents, the applicable price set forth in Exhibit C, and (ii) in the case of any raw materials, works in process (WIP), replacement parts, excess and obsolete inventory, or supplies, at PerkinElmer's standard costs for such items as established and reflected in PerkinElmer's system. All such remaining inventory shall be shipped to Akoya on or before December 31, 2019, or at such other date as may be mutually agreed upon by both parties, to Akoya's designated facility in Carlsbad, CA.";

e. a new Exhibit D is hereby added in the form of Attachment 1 to this Amendment;

7. Relationship to TSA.

a. The amendments and other terms set forth herein shall be effective from and after the Amendment Effective Date. Except as expressly provided herein, nothing in this Amendment shall affect any rights or obligations accrued under the TSA as of the Amendment Effective Date.

b. Except as expressly provided herein, the TSA shall remain unmodified and in full force and effect.

c. In the event of a conflict between the terms and conditions of this Amendment and the terms and conditions of the TSA, the terms and conditions of this Amendment shall govern and control.

8. Entire Agreement. The TSA, as amended by this Amendment, sets forth the entire agreement of the Parties with respect to its subject matter.

9. Counterpart Execution. This Amendment may be executed in counterparts with the same effect as if the Parties had signed the same document. Such counterparts shall be construed together and shall constitute one and the same instrument, notwithstanding that the Parties are not signatories to the original or the same instrument, or that signature pages from different counterparts are combined. The signature of any Party to one counterpart shall be deemed to be a signature to and may be appended to any other counterpart.

[SIGNATURE PAGE FOLLOWS]

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

IN WITNESS WHEREOF, the Parties have executed this Amendment as of the Amendment Effective Date by the proper and duly authorized persons.

PERKINELMER HEALTH SCIENCES, INC.

By: /s/ Joel Goldberg
Name: Joel Goldberg
Title: President

AKOYA BIOSCIENCES, INC.

By: /s/Terry Lo
Name: Terry Lo
Title: President

[Signature Page to First Amendment to Transition Services Agreement]

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

Attachment 1

Exhibit D to Reagents CMA

Last Time Buy QPS Reagents Quantity and Pricing

[***]

FP1135	1,035	5.95	6,158.25
FP1168	700	20.10	14,070.00
FP1169	60	228.40	13,704.00
FP1170	550	30.00	16,500.00
FP1171	310	55.30	17,143.00
FP1441	82	42.35	3,472.70
FP1470	60	107.45	6,447.00
FP1484	90	83.00	7,470.00
FP1486	52	123.25	6,409.00
NEF710	4	85.70	342.80
NEF802001EA	1	401.85	401.85
NEF803001EA	1	211.10	211.10
NEF812001EA	8	401.85	3,214.80
NEF812E001EA	1	162.65	121.99
NEF813001EA	1	211.10	211.10
NEF814001EA	1	759.80	759.80
NEF822001EA	7	401.85	2,812.95
NEF822E001EA	1	162.60	162.60
NEF823001EA	1	211.10	211.10
NEF832001EA	4	707.95	2,831.80
NEF833001EA	1	795.75	795.75
NEL721001EA	3	673.70	2,021.10
NEL750001EA	20	83.15	1,663.00
NEL751001EA	4	550.10	2,200.40
N EL937	14	174.10	2,437.40
NEL938001EA	1	271.15	271.15
TOTAL			**242,962.89**

Exhibit 10.13

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH "[***]". SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS (I) NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

EXCLUSIVE LICENSE AGREEMENT

BETWEEN

AKOYA BIOSCIENCES, INC.

AND

UNIVERSITY OF WASHINGTON

FOR

TECHNOLOGY FOR MOLECULAR PROFILING OF CELLS AND TISSUE SPECIMENS

UW COMOTION AGREEMENT 43158A

TABLE OF CONTENTS

EXCLUSIVE PATENT LICENSE AGREEMENT

This exclusive patent license agreement (this "**Agreement**"), effective as of June 26, 2018 (the "**Effective Date**"), is made and entered into between the University of Washington, a public institution of higher education and an agency of the state of Washington, ("**University**"), and Akoya Biosciences, Inc., a Delaware ("**Company**").

BACKGROUND

A. Certain innovations relating to molecular profiling of cells and tissue specimens were made in the laboratory of Dr. Xiaohu Gao ("**Principal Investigator**").

B. University owns certain intellectual property rights in such innovations as listed in Exhibit A "Exclusive License Schedule" to this Agreement, and University has the right to license to others certain rights to use and practice such intellectual property. University is willing to grant those rights so that University innovation may be developed for use in the public interest.

C. Company desires that University grant it an exclusive license under such intellectual property rights, and University is willing to grant such a license, on the terms set forth in this Agreement.

AGREEMENT

The Parties agree as follows:

1. DEFINITIONS

1.1 "**Affiliate**" means any person, organization or entity directly or indirectly controlling, controlled by or under common control with Company, that 1) agrees in writing to be bound by all terms and conditions of this Agreement to the same extent as Company and 2) whose acts and omissions are Company's responsibilities. For purposes of this definition only, "control" of another person, organization or entity shall mean the ability, directly or indirectly, to direct the activities of the relevant entity, and shall include, without limitation (i) ownership or direct control of fifty percent (50%) or more of the outstanding voting stock or other ownership interest of the other organization or entity, or (ii) possession of, or the power to elect or appoint fifty percent (50%) or more of the members of the governing body of the organization or other entity.

1.2 "**Acquisition**" means (a) the sale by Company of all, or substantially all of, its assets in transaction to a Third Party at arm's length, (b) the sale, transfer, or exchange by the shareholders, partners, or equity owners of Company of a majority interest in Company to an arm's length Third Party, or (c) the merger of Company into an arm's length Third Party.

1.3 "**Combination Product**" means a product or service sold in a form containing a Licensed Product and at least one other product, service, component, or ingredient which could be sold separate and apart from the Licensed Product, is not required for the function of the Licensed Product, and, if sold as a stand-alone item, would not constitute a Licensed Product.

1.4 "**Confidential Information**" means any information provided by a Party not generally known to the public, including any information comprised of those materials and Company's business plans or reports (e.g., Sales Reports and/or Commercialization Reports). Notwithstanding the foregoing, Confidential Information does not include any information that: (a) is, or becomes, part of the public domain through no fault of receiving Party; (b) is known to receiving Party prior to the disclosure by the disclosing Party, as evidenced by documentation; (c) is publicly released as authorized under this Agreement by University, its employees or agents; (d) is subsequently obtained by a Party from a Third Party who is authorized to have such information; or (e) is independently developed by a Party without reliance on any portion of the Confidential Information received from the disclosing Party and without any breach of this Agreement as evidenced by documentation.

1.5 "**Distributor**" means a distributor, reseller or original equipment manufacturer (OEM) ("**Distributing Entity**") to which Company, its Affiliates, or any of its Sublicensees ("**Licensed Party**") sells a Licensed Product for resale of Licensed Product by the Distributing Entity, and where Distributing Entity has no other rights with respect to the Licensed Rights other than to resell or otherwise distribute Licensed Products (including but not limited to integrated or bundled with other products or services), and for which resale or distribution Company and Sublicensees receive no further consideration (including but not limited to royalties and/or commissions) beyond the price for the initial sale of Licensed Product to the Distributing Entity.

1.6 "**Event of Force Majeure**" means an unforeseeable act that prevents or delays a Party from performing one or more of its duties under this Agreement and that is outside of the reasonable control of the Party. An Event of Force Majeure includes acts of war or of nature, insurrection and riot, and labor strikes. An Event of Force Majeure does not include a Party's inability to obtain a Third Party's consent to any act or omission, unless a separate Event of Force Majeure caused the inability.

1.7 "**Fair Market Value**" means the average price at which the stock in question is publicly trading for twenty (20) days prior to the announcement of its purchase by the Sublicensee(s), or, if the stock is not publicly traded, the value of such stock as determined in good faith by the board of directors of Company or Sublicensee.

1.8 "**Field of Use**" means multiplex detection, identification, and/or quantification of analytes in a biological sample.

1.9 "**First Commercial Sale**" means, with respect to any Licensed Product, (a) the first sale by Company or any of Company's Sublicensees on a commercial basis, in an arm's length transaction for end use or consumption of such Licensed Product anywhere in Territory after the relevant Regulatory Agency has granted Regulatory Approval of such Licensed Product, to the extent such Regulatory Approval is required in such country, or (b) if Regulatory Approval is not required for the marketing and/or sale thereof, the First Commercial Sale of such Licensed Product in such country shall be deemed to have occurred upon the first sale of a Licensed Product after the commencement of marketing efforts with respect to such Licensed Product. For clarity, sales for test marketing, sampling and promotional uses, clinical trial purposes, compassionate or similar use shall not be considered to constitute a First Commercial Sale.

1.10 "**Licensed Patents**" means (a) the patents and patent applications listed in Exhibit A1.1 "Licensed Patents", all (b) divisions, continuations, and claims in continuations-in-part that are entitled to claim priority to, or that share a common priority claim with, any patent or patent application listed on Exhibit A1.1 "Licensed Patents"; (c) extensions, renewals, substitutes, re-examinations and re-issues of any of the items in (a) or (b); and (d) foreign counterparts of any of the items in (a), (b), or (c) wherever and whenever filed.

1.11 "**Licensed Product**" means any method, process, composition, product, service, or component part thereof that would, but for the granting of the rights set forth in this Agreement, infringe a Valid Claim contained in the Licensed Patents.

1.12 "**Licensed Rights**" means all rights to Licensed Patents granted to Company under Article 2 "License Grant" of this Agreement.

1.13 "**Net Sales**" means the gross amount received by Licensed Party from Distributors, customers, end users and other Third Parties for sales, leases, and other dispositions of Licensed Products, less (a) all trade, quantity, and cash discounts actually allowed, (b) all credits and allowances actually granted due to rejections, returns, recalls, rebates, charge backs, billing errors, retroactive price reductions, (c) tariffs, duties and similar governmental charges levied on or measured by sale of Licensed Products, (d) excise, sale and use taxes, and equivalent taxes to the extent not reimbursable, and (e) freight, transport, packing, handling, and insurance charges associated with transportation but, in each case except (b), only if: (x) separately invoiced or otherwise documented, in which case only to the extent such separate invoice or documentation directly links each such item of information for deduction to the relevant invoice as for the sale, lease or other disposition of the Licensed Product (via serial number or other means), or (y) if stated on the same invoice as for the sale, lease or other disposition of the Licensed Product. On sales of Licensed Products made in other than an arm's length transaction, the value of the Net Sales attributed to such transaction will be equal to the Net Sales which would have been received in an arm's length transaction, based on sales of like quantity and quality of Licensed Products sold on or about the time of the transaction; provided that Net Sales does not include transfers of reasonable quantities of Licensed Product to Third Parties for research or development of such Licensed Product or as product samples at cost (or less than cost). Net Sales does not include sale, lease, disposition or other transfer of Licensed Products among or between Company, any Affiliate and/or Sublicensees for the purpose of subsequent resale to a Third Party, but does include subsequent resale to such Third Party. For avoidance of doubt, Net Sales are calculated on sales by Licensed Party to Distributor, and not on the subsequent sale by Distributor.

Net Sales on Combination Products will be calculated by multiplying actual Net Sales of such Combination Products by the fraction A/(A+B), where "A" is the Net Sales price of the Licensed Product if sold or performed separately, and "B" is the Net Sales price of the other product, component or ingredient or service in the Combination Product if sold separately. If, on a country-by-country basis, the other product, component or ingredient or service in the Combination Product is not sold separately in said country, Net Sales on Combination Products shall be calculated by multiplying actual Net Sales of the Combination Product by the fraction A/C where "A" is the Net Sales price of the Licensed Product, if sold separately, and "C" is the Net Sales price of the Combination Product. If, on a country-by-country basis, neither the Licensed Product, nor the other product, component or ingredient or service in the Combination Product, is sold separately in said country, Net Sales for the purpose of determining Running Royalties of the Combination Product shall be determined in good faith by the parties.

1.14 "**Unaffiliated Third Party**" means an individual or entity other than University, Company, and/or Company's Affiliates.

1.15 "**Parties**" means University and Company and "**Party**" means either University or Company.

1.16 "**Patent Expenses**" means all reasonable costs (including attorneys' and application fees) incurred by University to apply for, prosecute and maintain Licensed Patents, including but not limited to the costs of interferences, oppositions, inter partes review, and re-examinations. Patent Expenses include reimbursement for in-house costs provided they are for activities that would otherwise have been performed by outside counsel at an equal or greater expense.

1.17 "**Performance Milestone**" means any of the milestones described in Section A2 "Performance Milestones" of attached Exhibit A "Exclusive License Schedule".

1.18 "**Performance Milestone Date**" means the date by which a Performance Milestone is to be achieved as set forth in Section A2 "Performance Milestones" of attached Exhibit A "Exclusive License Schedule", as such date may be extended pursuant to Section 5.1 "Performance Milestones" or otherwise agreed upon by the Parties.

1.19 "**Permitted Sublicense**" means any arm's length agreement with a Third Party manufacturer or contract researcher/developer with whom Licensed Party contracts for manufacture or development of Licensed Products on Licensed Party's behalf, and where such Third Party has no other rights with respect to the Licensed Rights other than to manufacture or develop on behalf of Licensed Party.

1.20 "**Permitted Sublicensee**" means a Third Party holding a Permitted Sublicense.

1.21 "**Regulatory Agency**" means the FDA or equivalent licensing agency in the applicable jurisdiction.

1.22 "**Regulatory Approval**" means approval of the applicable New Drug Application, Abbreviated New Drug Application, Biologics License Application, Premarket Approval Application, clearance of 510(k) Premarket Notification, or other similar approval or registration required under the U.S. Federal Food, Drug and Cosmetics Act and the regulations promulgated thereunder, or of a comparable foreign filing for marketing approval required by the applicable Regulatory Agency.

1.23 "**Sales Report**" means a report in substantially the form set forth in Exhibit B "Royalty Report Form".

1.24 "**Sublicense**" means the grant by Company or a Sublicensee to an Unaffiliated Third Party of any license, option, first right to negotiate, or other right granted under the Licensed Rights, in whole or in part. The grant of the right to resell to a Distributor and the grant of a license or other right to use a Licensed Product to an end-user, where the end user has no other rights with respect to the Licensed Rights other than to be an end user of the Licensed Product, will not be a Sublicense and will be treated under Net Sales.

1.25 "**Sublicensee**" means an Unaffiliated Third Party holding a Sublicense under the Licensed Rights.

1.26 "**Sublicense Consideration**" means all consideration, including but not limited to upfront fees, milestone payments, maintenance fees, non-cash consideration, and premiums over Fair Market Value of stock, but excluding royalties on Net Sales received from each Sublicensee for the grant of a Sublicense.

For avoidance of doubt, consideration paid to Company by Sublicensees for the following shall not be deemed Sublicense Consideration: (a) documented bona fide performance of Licensed Product development work, research work, clinical studies and regulatory approvals performed by Company, pursuant to and as supported by an express agreement including a performance plan and commensurate budget, (b) for bona fide debt financing, other than conditional equity, warrants, and convertible debt, or bona fide loans made to Company by a Sublicensee, (c) investments in the Company at Fair Market Value, and/or (d) contractually required reimbursement of payment amounts otherwise due under this Agreement from Company to University for Patent Expenses pursuant to Section A3.5 "Patent Expense Payment" of Exhibit A, and (e) to the extent a milestone under Section A3.6 "Financial Milestones" of this Agreement is met by the Sublicensee, any pass-through payment to Company that ultimately comes to University for such financial milestone payment and (f) consideration in connection with an Acquisition.

1.27 "**Territory**" means Worldwide.

1.28 "**Third Party**" means an individual or entity other than University and Company.

1.29 "**Valid Claim**" means (a) a claim in an issued, unexpired United States or granted foreign patent included in the Licensed Patents that: (i) has not been held invalid, unpatentable, or unenforceable by a decision of a court or other governmental agency of competent jurisdiction and not subject to appeal (ii) has not been admitted to be invalid or unenforceable through reissue, inter partes review, disclaimer, or otherwise, (iii) has not been lost through an interference, reexamination, or reissue proceeding; or (b) a pending claim of a pending patent application included in the Licensed Patents.

2. LICENSE GRANT. Subject to the terms and conditions of this Agreement:

2.1 Patent License. University hereby grants to Company an exclusive (subject only to any rights of the government described in Section 2.4 "The United States Government's Rights" and to rights of University described in Article 3 "Rights of University; Limitations" license under the Licensed Patents to make, have made on Company's behalf, use, offer to sell, sell, offer to lease or lease, import, or otherwise offer to dispose of Licensed Products in the Territory in the Field of Use. Unless otherwise terminated under Article 9 "Termination", the term of this patent license will begin on the Effective Date and will continue until all Valid Claims expire or are held invalid or unenforceable by a court of competent jurisdiction from which no appeal can be taken.

2.2 Sublicense Rights. Company has the right, exercisable during the term of this Agreement, to grant Sublicenses to its exclusively Licensed Rights under this Agreement. Company may grant Sublicensees the right to grant Sublicenses, but not the right to enforce Licensed Rights, solely within the scope of the rights granted to Company herein. For clarity, the preceding sentence does not preclude Sublicensees from joining an enforcement action brought by Company and/or University to enforce Licensed Rights. Company will remain responsible for its obligations under this Agreement. Except for Permitted Sublicensees, Company will ensure that the Sublicense agreement: (a) contains terms and conditions that require Sublicensee to comply with the terms and conditions of this Agreement applicable to Sublicensees, including a release substantially similar to that provided by Company in Section 10.1 "Company's Release"; a warranty substantially similar to that provided by Company in Section 11.1 "Authority"; University disclaimers and exclusions of warranties under Sections 11.2.1 and 11.2.2 "General Disclaimers" and "Intellectual Property Disclaimers"; and limitations of remedies and damages substantially similar to those provided by Company in Sections 12.1 "Remedy Limitation" and 12.2 "Damage Cap"; (b) specifically incorporates provisions of this Agreement regarding obligations pertaining to indemnification, use of names and insurance binding Sublicensee to same extent as Company is bound in this Agreement. Company will provide University with a copy of the executed Sublicense, excluding any Permitted Sublicense agreement, within thirty (30) days after its execution. Company will not enter into any Sublicense agreement if the terms of such agreement are inconsistent in any material respect with the material terms of this Agreement. Any Sublicense made in violation of this Section 2.2 "Sublicense Rights" will be void and will constitute an event of default that requires remedy under Section 9.2 "Termination by University".

2.3 Limitation of Rights. No provision of this Agreement grants to Company, by implication, estoppel or otherwise, any rights other than the rights expressly granted it in this Agreement under the Licensed Rights, including any license rights under any other University-owned technology, copyright, know-how, patent applications, or patents, or any ownership rights in the Licensed Rights.

2.4 The United States Government's Rights. Inventions covered in the Licensed Patents arose, in whole or in part, from federally supported research and the federal government of the United States of America has certain rights in and to such inventions as those rights are described in Chapter 18, Title 35 of the United States Code and accompanying regulations, including Part 401, Chapter 37 of the Code of Federal Regulation. The Parties' rights and obligations under this Agreement to any government-funded inventions, including the grant of license set forth in Section 2.1 "Patent License", are subject to the applicable terms of the aforementioned United States laws.

2.5 Rights to Affiliates. Company may extend rights granted to Company under Section 2.1 "Patent License" to have some or all of Company's rights under Section 2.1 exercised or performed by one or more of Company's Affiliates (solely for as long as they fall under the definition of Affiliates) on Company's behalf for Company's benefit, provided that (a) Company is responsible for all acts of such Affiliates as if they were acts of the Company, and (b) Company reports to University pursuant to Section 13.9 "Notices" that such Affiliate will be exercising rights under this Agreement prior to such Affiliate exercising any such rights under this Agreement. For avoidance of doubt, Company may perform any obligation of Affiliate on Affiliate's behalf.

3. RIGHTS OF UNIVERSITY; LIMITATIONS

3.1 University's Rights. University reserves all rights not expressly granted to Company under this Agreement. University retains for itself an irrevocable, nonexclusive license to practice Licensed Rights for research use only clinical purposes. University retains for itself and other not-for-profit academic research institutions, an irrevocable, nonexclusive license to practice Licensed Rights for academic research, instructional, or any other academic or non-commercial purpose.

Expressly included within University's reservation of rights is to do the following in connection with academic research, instructional, or any other academic or non-commercial purposes:

(a) to use the Licensed Rights in sponsored research or collaborative research with any Third Party, but not for any commercial purpose, and only to the extent that no such Third Party is granted any commercialization rights of any kind under the Licensed Rights or to commercialize Licensed Products,
(b) to grant material transfer agreements to the extent that the use of such materials is restricted to academic research, teaching and or other scholarly activities, and
(c) to publish any information included in the Licensed Rights or any other information that may result from University's research.

3.2 Mandatory Sublicensing. If University is solicited by an Unaffiliated Third Party who wishes to license Licensed Patents for any field within the Field of Use that University reasonably believes is not being actively developed or commercialized by Company, any of its Sublicensees, or Company's Affiliates, (hereinafter the "**Sub-Field**"), University shall so notify Company, and Company shall notify University in writing of the following: (1) whether Company has been engaged in Sublicensing negotiations with such Unaffiliated Third Party, (2) the terms of such Sublicense offered by Company to such Unaffiliated Third Party, and (3) the length of time over such negotiations have occurred. Company shall exercise one of the following options within ninety (90) days of Company's receipt of University's notification, unless Company provides written evidence to University's reasonable judgment that Company has existing bona fide plans for developing a Licensed Product in the Sub-Field. For clarity, if any of Company's then current Licensed Products fall under the scope of such Sub-Field then Company will be deemed to have fulfilled all its obligations under this Section 3.2 with respect to such Sub-Field.

3.2.1 Company Development Plan. Demonstrate to University's reasonable satisfaction by submission of a new development plan inclusive of research and commercial milestones, an active research and development program for the development and commercialization of a Licensed Product in the Sub-Field.

3.2.2 Company Grant. Negotiate and enter into a Sublicense agreement with such Unaffiliated Third Party in the Sub-Field on commercially reasonable license terms; provided that the Unaffiliated Third Party has reasonably demonstrated it has adequate resources and a bona fide, detailed proposal to develop Licensed Product in the Sub-Field, and further provided that Company shall have fulfilled its obligations under this Subsection 3.2.2 if it has entered into such negotiations and the Unaffiliated Third Party cannot agree on commercially reasonable license terms to the extent University determines in its reasonable, good faith judgment, that the terms offered by Company to the Unaffiliated Third Party were commercially reasonable.

3.2.3 University Direct Grant. If Company has not proceeded under either Subsection 3.2.1 or 3.2.2 within ninety (90) days of notification to Company by University (or such longer time as will be mutually agreed to by the parties in writing), University may directly grant a license to such Unaffiliated Third Party in the Sub-Field for the benefit of University exclusive of any benefit to Company.

3.3 Reservation of Rights for Humanitarian Purposes. Consistent with 35 U.S.C. §200 et seq., University retains the right to require Company to grant Sublicenses to responsible applicants in the Field of Use under the Licensed Patents on terms that are reasonable under the circumstances; or, if Company fails to grant a license, to grant the license itself. The exercise of these rights by University will only be in exceptional circumstances and only if University determines (a) the action is necessary to meet health or safety needs that are not reasonably satisfied by Company; or (b) the action is necessary to meet requirements for public use specified by federal regulations, and such requirements are not reasonably satisfied by Company. University will not require the granting of a sublicense, and will not grant the license itself, unless the responsible applicant has first negotiated in good faith with Company.

4. APPLICATIONS AND PATENTS

4.1 Pre-Agreement Patent Filings and Licensed Product Sales. Company has reviewed the Licensed Patents and as of the Effective Date is not aware of any written challenge or dispute regarding the inventorship, validity, or enforceability of any of the claims made in the Licensed Patents. Company further represents that, as of the Effective Date, it has not and does not offer to sell or sell, offer to lease or lease, import, or otherwise offer to dispose or dispose of (a) any product or good that infringes (including under the doctrine of equivalents) a Valid Claim in any Licensed Patent, or (b) any product or good that is made using a process or machine that infringes (including under the doctrine of equivalents) a Valid Claim in a Licensed Patent.

4.2 Patent Prosecution Decisions. University and Company will consult on the preparation, filing and prosecution of the Licensed Patents including delivering to Company all written and electronic communications to and from all patent offices and foreign counsel, and provide summaries of oral communications with patent offices. Provided Company is in compliance with Section A3.5 “Patent Expense Payment” of Exhibit A “Exclusive License Schedule”, Company’s directions regarding patent preparation, filing and prosecution will be followed unless detrimental to University’s intellectual property rights. University and Company will consult prior to deciding in which countries to pursue patent protection and provided Company is in compliance with Section A3.5 “Patent Expense Payment” of Exhibit A, patents will be filed in all countries Company designates. University will remain the client of record, and may at its own expense instruct patent counsel to take actions necessary to protect University’s intellectual property rights, if in University’s reasonable opinion, Company actions will result in a loss of rights; provided that for any such actions, if Company declines to reimburse University pursuant to Section A1.1 “Licensed Patents” of Exhibit A, those applications and resultant patents will not be subject to this Agreement. In no event will Company file a patent application where all of the inventors are under University policy obligated to assign their rights in such patent application to University. In no event shall Company file a patent application where one or more, but not all, of the inventors are under University policy obligated to assign their rights in such patent application to University without University’s prior consent which shall not be unreasonably withheld or delayed.

5. COMMERCIALIZATION

5.1 Performance Milestones. Company and its Affiliates will, directly or through its Sublicensees, use its commercially reasonable efforts, consistent with sound and reasonable business practices and judgment, to commercialize the Licensed Rights and to make and sell Licensed Products as soon as practicable and to maximize sales thereof. Unless an extension is provided due to an Event of Force Majeure during the term of this Agreement, Company shall perform, or shall cause to happen or be performed, the Performance Milestones in accordance with the Performance Milestone Dates. Upon the occurrence of an Event of Force Majeure, the Performance Milestones and Performance Milestone Dates shall be equitably adjusted to accommodate the Event of Force Majeure.

5.2 Covenants Regarding the Manufacture of Licensed Products. Company hereby covenants and agrees that the manufacture, use, sale, or transfer of Licensed Products will comply with all applicable federal and state laws, including all federal export laws and regulations. Company hereby further covenants and agrees that, to the extent required by 35 United States Code Section 204, it shall, and it shall cause each Sublicensee, to substantially manufacture in the United States of America all products embodying or produced through the use of an invention that is subject to the rights of the federal government of the United States of America, unless a written waiver is duly obtained from the applicable United States governmental agency. University will apply to the applicable United States governmental agency for a waiver to such requirements; provided, however, that Company provides any and all information and documentation required by such applicable United States governmental agency in sufficient quality and detail, and in a timely fashion.

5.3 Commercialization Reports. Throughout the term of this Agreement and during the Sell-Off Period, and within thirty (30) days of December 31st of each year, Company will deliver to University written reports of Company's and Sublicensees' efforts and plans to develop and commercialize the innovations covered by the Licensed Rights and to make and sell Licensed Products. Company will have no obligation to prepare commercialization reports in years where (a) Company delivers to University a written Sales Report with active sales, and (b) Company has fulfilled all Performance Milestones. In relation to each of the Performance Milestones each commercialization report will include sufficient information to demonstrate compliance of those Performance Milestones and will set out timeframes and plans for those Performance Milestones which have not yet been met. Throughout the term of this Agreement, Company shall provide the names and sufficient contact information to identify any Permitted Sublicensees within thirty (30) days of University's request.

6. PAYMENTS, REIMBURSEMENTS, REPORTS, AND RECORDS

6.1 Payments. Company will deliver to University the payments specified in Section A3 "Payments" of attached Exhibit A "Exclusive License Schedule". All Payments are non-refundable. Company will make such payments by check, wire transfer, or any other mutually agreed-upon and generally accepted method of payment. All checks to University will be made payable to "University of Washington" and will be mailed to the address specified in Section 13.9 "Notices" and will reference the University agreement number 43158A. All wire or electronic fund transfers must be confirmed via email referencing the above agreement number to: ipfin@uw.edu

Wire transfers:
Bank of America, Washington
University Branch
Seattle WA, 98105-4412
Acct # 62762208, ABA # 0260-0959-3
RE: CoMotion 65-9501
($30.00 for wire transfer fee must be included)

Electronic Fund Transfer (ACH):
Bank of America, Washington
University Branch
Seattle WA, 98105-4412
Acct # 62762208, ABA # 125000024
RE: CoMotion 65-9501
($30.00 for fund transfer fee must be included)

6.2 Currency and Checks. All computations and payments made under this Agreement will be in United States dollars. The exchange rate for the currency into dollars as reported in The Wall Street Journal as the New York foreign exchange mid-range rate on the last business day of the month in which the transaction was entered into will be used for determining the dollar value of transactions conducted in non-United States dollar currencies.

6.3 Late Payments. University may charge Company a late fee for all amounts owed to University that are more than thirty (30) days overdue. The late fee will be computed as the United States prime rate plus two percent (2%), compounded monthly, as set forth by The Wall Street Journal (Western edition) on the date on which the payment is due, of the outstanding, unpaid balance. The payment of a late fee will not foreclose or limit University from exercising any other rights it may have as a consequence of the lateness of any payment.

6.4 Sales Reports. Within thirty (30) days after the last day of each calendar quarter commencing the calendar quarter after the Company effects its first commercial sale of a Licensed Product and during the term of this Agreement and the Sell-Off Period, Company will deliver to University the Sales Report setting forth the number of and Net Sales amount (expressed in U. S. dollars) of all sales, leases, or other dispositions of Licensed Products, whether made by Company or a Sublicensee, during such calendar quarter. Included in each sales report will be the name of each Distributor, and the number and type of Licensed Product sold, leased, or otherwise provided to such Distributor. Company will deliver a written Sales Report to University even if Company is not required hereunder to pay to University a royalty payment during the calendar quarter. Company shall provide the names of Permitted Sublicensees within 30 days at University's request.

6.5 Books and Records. Throughout the term of this Agreement and for five (5) years thereafter, Company, at its expense, will keep and maintain and shall cause each Sublicensee other than Permitted Sublicensees to keep and maintain complete and accurate records of all sales, leases, and other dispositions of Licensed Products and all other records related to this Agreement.

6.5.1 Audit Rights. Company will permit at the request of University (not to be made more than once in any given calendar year), one or more independent, certified accountants selected by University and reasonably acceptable to Company (which acceptance shall not be unreasonably withheld or delayed) ("**Accountants**") to have access to Company's records and books of account pertaining to calculation of Net Sales and payment of any other amounts owed under this Agreement. Accountants' access will be during ordinary working hours to audit Company's records for any payment period ending prior to such request, the correctness of any Sales Report or payment made under this Agreement, or to obtain information as to the payments due for any period in the case of failure of Company to report or make payment under the terms of this Agreement or to verify Company's compliance with its payment obligations hereunder. Accountants will sign Company's standard non-disclosure agreement provided it is reasonable to the industry in which Company operates. Company shall cause each Sublicensee, other than Permitted Sublicensees, that manufactures, sells, leases, or otherwise disposes of Licensed Products on behalf of Company to grant University the right to inspect and audit Sublicensee's records.

6.5.2 Scope of Disclosure. Accountants will not disclose to University any information relating to the business of Company except that which is necessary to inform University of: (a) the accuracy or inaccuracy of Company's Sales Reports and payments; (b) compliance or noncompliance by Company with the terms and conditions of this Agreement; or (c) the extent of any inaccuracy or noncompliance. A copy of the Accountants' report will be provided to Company.

6.5.3 Accountant Copies. If Accountants believe there is an inaccuracy in any of Company's payments or noncompliance by Company with any terms and conditions, Accountants will have the right to make and retain copies (including photocopies) of any pertinent portions of the records and books of account.

6.5.4 Costs of Audit. If Company's royalties calculated for any calendar year quarterly period are under-reported by more than three percent (3%), the costs of any audit and review initiated by University will be borne by Company; otherwise, University shall bear the costs of any audit initiated by University.

7. INFRINGEMENT

7.1 Notice of Third Party's Infringement. If a Party learns of substantial, credible evidence that a Third Party is infringing exclusively Licensed Rights, that Party will promptly deliver written notice of the possible infringement to the other Party, describing in detail the relevant information to which that Party has access or control suggesting infringement of the exclusively Licensed Rights.

7.2 Company's First Right to Enforce. During the term of this Agreement, Company has the first right to respond to, defend, and prosecute in its own name, and at its own expense, actions or suits relating to the exclusively Licensed Rights. University may request in writing that Company take action against known infringer. If required by law or otherwise legally necessary for such action to proceed, Company may request that University be joined as a party plaintiff and University will consider such request in good faith, such request not to be unreasonably denied or delayed, provided that (a) Company must notify University at least 10 days before Company wishes to file suit, (b) Company will reimburse University for all reasonable legal fees and costs incurred by University in connection with such action, and (c) University is not the first named party in the action. Company will not settle any suits or actions in any manner relating to the Licensed Rights that is detrimental to the University or to the scope or validity of Licensed Rights, without obtaining the prior written consent of University, which consent shall not be unreasonably withheld or delayed.

7.3 Distributions. Out of any Sublicense fees, royalties, damages, awards, or settlement proceeds from any settlement or judgment for infringement of Licensed Rights, Company is allowed to first recover its reasonable attorney's fees and other out-of-pocket expenses directly related to any action, suit, or settlement for infringement of the Licensed Rights. Any payment by an alleged infringer that, under the terms of the applicable settlement agreement or judgment, (a) constitutes consideration for Net Sales of infringing product (or an equivalent characterization in the nature of a product royalty) will be handled according to the payment provisions in Section A3.2 "Running Royalty Payments", and (b) constitutes consideration for the grant of a Sublicense (or an equivalent characterization) will be handled according to Section A3.7 "Sublicense Consideration" of Exhibit A. Any remaining proceeds will be distributed seventy-five percent (75%) to Company and twenty-five percent (25%) to University.

7.4 Limitation on Infringement Actions. Excluded from the rights granted herein is the right to bring an infringement action against a not-for-profit entity for infringement of the Licensed Rights in carrying out not-for-profit research.

7.5 University Right to Institute Action. If Company fails, within ninety (90) days of learning of an alleged infringer of exclusively Licensed Rights, to secure cessation of the infringement, institute suit against the infringer, or to provide to University satisfactory evidence that Company is engaged in bona fide negotiations for the acceptance by infringer of a Sublicense to the relevant Licensed Rights, then University may, upon written notice to Company, assume full right and responsibility to secure cessation of the infringement or institute suit against the infringer, or secure acceptance of a Sublicense by Company from the alleged infringer in the relevant Licensed Patents. Before commencing such action, University shall consult with Company concerning, among other things, the advisability of bringing suit, the selection of counsel, and the jurisdiction for such action. Although University shall use reasonable efforts to consider the views of Company regarding the proposed action, including without limitation with respect to potential effects on Company's interest in the Licensed Patents, University is not obligated to accept Company's position. If University, in accordance with the terms and conditions of this Agreement, chooses to institute suit against an alleged infringer, University may bring such suit in its own name (or, if required by law, in its and Company's name) and at its own expense, and Company will, but at University's expense for Company's direct associated expenses, fully and promptly cooperate and assist University in connection with any such suit. All license fees, royalties, damages, awards, or settlement proceeds arising from such a University-initiated action will be solely for the account of University.

7.6 No Obligation to Institute Action. Neither Company nor University is obligated under this Agreement to institute or prosecute a suit against any alleged infringer of the Licensed Rights.

8. LICENSED RIGHTS VALIDITY

8.1 Notice and Investigation of Third Party Challenges. If any Third Party challenges the validity or enforceability of any of the Licensed Rights, the Party having such information will immediately notify the other Party.

8.2 Tender to University of Third Party Actions. In the event of Third Party legal action challenging the validity or enforceability of any of the Licensed Rights, Company shall have the first right to assume and control the defense of the such Licensed Rights at Company's expense. If Company fails to take action defending such Licensed Rights, to University's reasonable satisfaction, within sixty (60) days of first becoming aware of said challenge or at any time thereafter fails to defend such Licensed Rights to University's reasonable satisfaction, University shall have the right to assume and control the sole defense of the claim at University's expense. Company shall not settle any suits or actions in any manner relating to the Licensed Rights without obtaining the prior written consent of University.

8.3 Enforceability of Licensed Rights. Notwithstanding challenge by any Third Party, any Licensed Right will be enforceable under this Agreement until such Licensed Right is determined to be invalid.

9. TERMINATION

9.1 End of Term. This Agreement will expire, unless terminated earlier as provided in this Article 9 "Termination", without further action by the Parties, when all Licensed Rights have terminated pursuant to Article 2 "License Grant", and all obligations due to University based on the exercise of such Licensed Rights have been fulfilled.

9.2 Termination by University. If Company materially breaches or fails to perform one or more of its material duties under this Agreement, University may deliver to Company a written notice of default. University may terminate this Agreement by delivering to Company a written notice of termination if the default has not been cured in full within sixty (60) days of the delivery to Company of the notice of default.

9.3 Events of Default. University may terminate this Agreement by delivering to Company a written notice of termination at least ten (10) days prior to the date of termination if Company (i) becomes insolvent; (ii) voluntarily files or has filed against it a petition under applicable bankruptcy or insolvency laws that Company fails to have released within thirty (30) days after filing; (iii) proposes any dissolution, composition, or financial reorganization with creditors or if a receiver, trustee, custodian, or similar agent is appointed; (iv) makes a general assignment for the benefit of creditors; or (v) if Company challenges the validity of the Licensed Patents.

9.4 Termination by Company. Company may terminate this Agreement at any time by delivering to University a written notice of termination at least sixty (60) days prior to the effective date of termination.

9.5 Effect of Termination. Upon termination of this Agreement, the Licensed Rights granted (including any and all rights granted under the Licensed Rights to Sublicensees including Permitted Sublicensees) will terminate. However, no end-user rights shall terminate as a result of termination of this Agreement. Company's obligations that have accrued prior to the effective date of termination or expiration of this Agreement (including but not limited to the obligations under Article 6 "Payments, Reimbursements, Reports, and Records" will survive termination of this Agreement. Sublicenses will terminate unless converted into a direct license with University pursuant to Section 9.7 "Sublicenses After Termination". Notwithstanding any such termination of this Agreement, subject to being in compliance with Article 6 "Payments, Reimbursements, Reports, and Records" of this Agreement at the time of termination, and subject to ongoing compliance with obligations under Article 6 "Payments, Reimbursements, Reports, and Records", Company and any Sublicensees and Distributors may sell or otherwise dispose of existing inventory of Licensed Products for a period of one hundred eighty (180) days after the effective date of termination of this Agreement ("**Sell-Off Period**"). Company will provide notification if Company, or any Sublicensees or Distributors, will be exercising their rights to continue selling inventory pursuant to the Sell-Off Period.

9.6 Final Report to University. Within sixty (60) days after the end of the calendar quarter following either the expiration or termination of either this Agreement or the Sell-Off Period, whichever is later, Company will submit a final Sales Report to University. Any payment obligations accrued prior to such termination or expiration, including those incurred but not yet paid, will become due and payable at the same time as this final Sales Report is due to University.

9.7 Sublicenses After Termination. At any time within thirty (30) days following termination of this Agreement, a Sublicensee may notify University that it wishes to enter into a direct license with University in order to retain its rights to the Licensed Rights granted to it under its Sublicense (such 30-day period following termination, the "**Initial Notice Period**"). Following receipt of such notice, University and Sublicensee will enter into a license agreement the terms of which will be substantially similar to the terms of this Agreement. The scope of the direct license, the licensed territory, and the duration of the license grant will be comparable to the corresponding terms granted by Company to such Sublicensee, provided that such Sublicensee will be granted at least the same scope of rights as it obtained from Company under its Sublicense. For the sake of clarity, the financial terms, including without limitation, the running royalty rate and milestone payments, will be identical to the corresponding financial terms set forth in this Agreement. Notwithstanding the foregoing, each Sublicensee's right to enter into such direct license will be conditioned upon:

9.7.1 Written Notification to University. Such Sublicensee informing University in writing, pursuant to Section 13.9 "Notices", that it wishes to enter into such direct license with University, within the Initial Notice Period;

9.7.2 Sublicensee in Good Standing. Such Sublicensee being in good standing with Company under its Sublicense, and such Sublicense not being the subject of a dispute between Sublicensee and Company, or between Company and University under this Agreement;

9.7.3 Valid Sublicense. Such Sublicense having been validly entered into by Company and Sublicensee pursuant to the terms of Section 2.2 "Sublicense Rights";

9.7.4 Sublicensee Certification that Conditions are Satisfied. Such Sublicensee using reasonable efforts to certify or otherwise demonstrate that the conditions set forth in Subsections 9.7.1 "Written Notification to University", 9.7.2 "Sublicensee Good Standing", and 9.7.3 "Valid Sublicense" have been met within thirty (30) days of expiration of the Initial Notice Period (or within such longer period of time as University agrees is reasonable under the circumstances, based on the nature and extent of any documentation reasonably requested by University); and

9.7.5 Time Limitations. Unless mutually agreed by the Parties in writing, such negotiations for a direct license are not to exceed ninety (90) days from the end of the Initial Notice Period.

University may, at its sole discretion, waive any of these requirements. If all of the conditions set forth in this Section 9.7 "Sublicenses After Termination" are met, then Sublicensee will be granted such direct license by University. If any condition set forth in this Section 9.7 "Sublicenses After Termination" is not met, then after expiration of any time period granted to Sublicensee with respect to meeting such condition [for example and to the extent applicable, the Initial Notice Period and/or the periods described in Subsections 9.7.4 "Sublicensee Certification that Conditions are Satisfied" and 9.7.5 "Time Limitations", Sublicensee will not practice Licensed Rights except as provided for in Section 9.5 "Effect of Termination" and University will be free to license or not license Licensed Rights to such Sublicensee according to University's sole discretion.

10. RELEASE, INDEMNIFICATION, AND INSURANCE

10.1 Company's Release. For itself and its employees, Company hereby releases University and its regents, employees, and agents forever from any suits, actions, claims, liabilities, demands, damages, losses, or expenses (including reasonable attorneys' and investigative expenses) relating to or arising out of (a) the manufacture, use, lease, sale, or other disposition of a Licensed Product; or (b) the assigning or sublicensing of Company's rights under this Agreement.

10.2 Indemnification. Company will indemnify, defend, and hold harmless University and its regents, employees, and agents (each, an "**Indemnitee**") from all Third Party suits, actions, claims, liabilities, demands, damages, losses, or expenses (including reasonable attorneys' and investigative expenses), based on University's role in developing or licensing Licensed Rights and relating to or arising out of Company's or Sublicensees' exercise of any rights with respect to Licensed Products, including, without limitation, personal injury, property damage, breach of contract and warranty and products-liability claims relating to a Licensed Product and claims brought by a Sublicensee (each, a "**Claim**"), provided that the Company will not have obligations to the extent resulting from the University's gross negligence or willful misconduct.

10.2.1 In the event of a Claim, the Indemnitee against whom a Claim is brought will: (a) give Company written notice of the Claim within a reasonable period of time after such Indemnitee receives notice thereof along with sufficient information for Company to identify the Claim; and (b) cooperate and provide such assistance (including, without limitation, testimony and access to documentation within the possession or control of such Indemnitee) as Company may reasonably request in connection with Company's defense, settlement and satisfaction of the Claim. Company will pay or reimburse all costs and expenses reasonably incurred by such Indemnitee to provide any such cooperation and assistance. Any settlement that would admit liability on the part of University or that would involve any relief other than the payment of monetary damages will be subject to the approval of University, such approval not to be unreasonably withheld.

10.3 Company's Insurance.

10.3.1 General Insurance Requirement. Throughout the term of this Agreement, or during such period as the Parties will agree in writing, Company will maintain, and shall cause each Sublicensee to maintain, in full force and effect commercial general liability (CGL) insurance and product liability insurance, with single claim limits consistent with industry standards. Such insurance policy will include coverage for claims that may be asserted by University against Company under Section 10.2 "Indemnification". Such insurance policy will name the Board of Regents of the University of Washington as an additional insured and will require the insurer to deliver written notice to University at the address set forth in Section 13.9 "Notices", at least thirty (30) days prior to the termination of the policy. Company will deliver to University a copy of the certificate of insurance for such policy.

10.3.2 Clinical Trial Liability Insurance. Within thirty (30) days prior to the initiation of human clinical trials with respect to Licensed Product(s), Company will provide to University certificates evidencing the existence and amount of clinical trials liability insurance. Company will issue irrevocable instructions to its insurance agent and to the issuing insurance company to notify University of any discontinuance or lapse of such insurance not less than thirty (30) days prior to the time that any such discontinuance is due to become effective. Company will provide University a copy of such instructions upon their transmittal to the insurance agent and issuing insurance company. Company will further provide University, at least annually, proof of continued coverage.

11. WARRANTIES

11.1 Authority. Each Party represents and warrants to the other Party that it has full power and authority to execute, deliver, and perform this Agreement, and that no other proceedings by such Party are necessary to authorize the Party's execution or delivery of this Agreement.

11.2 Disclaimers.

11.2.1 General Disclaimers. University innovation has been developed as part of research conducted at University. University innovation is experimental in nature and is made available "AS IS," without obligation by University to provide accompanying services or support except as specified in this Agreement. The entire risk as to the quality and performance of University innovation is with Company. EXCEPT FOR THE EXPRESS WARRANTY SET FORTH IN SECTION 11.1 "Authority" OF THIS AGREEMENT, UNIVERSITY DISCLAIMS AND EXCLUDES ALL WARRANTIES, EXPRESS AND IMPLIED, CONCERNING EACH LICENSED RIGHT AND EACH LICENSED PRODUCT, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF NON-INFRINGEMENT AND THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

11.2.2 Intellectual Property Disclaimers. University expressly disclaims any warranties concerning and makes no representations: (a) that the Licensed Patent(s) will be approved or will issue; (b) concerning the validity or scope of any Licensed Right; or (c) that the practice of Licensed Rights, or the manufacture, use, sale, lease or other disposition of a Licensed Product will not infringe or violate a Third Party's patent, copyright, or other intellectual property right.

12. DAMAGES

12.1 Remedy Limitation. EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, (A) IN NO EVENT WILL UNIVERSITY BE LIABLE FOR PERSONAL INJURY OR PROPERTY DAMAGES ARISING IN CONNECTION WITH THE ACTIVITIES CONTEMPLATED IN THIS AGREEMENT AND (B) IN NO EVENT WILL EITHER PARTY BE LIABLE FOR LOST PROFITS, LOST BUSINESS OPPORTUNITY, INVENTORY LOSS, WORK STOPPAGE, LOST DATA OR ANY OTHER RELIANCE OR EXPECTANCY, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OF ANY KIND.

12.2 Damage Cap. IN NO EVENT WILL UNIVERSITY'S TOTAL LIABILITY FOR THE BREACH OR NONPERFORMANCE OF THIS AGREEMENT EXCEED THE AMOUNT OF PAYMENTS PAID TO UNIVERSITY UNDER ARTICLE 6 "PAYMENTS, REIMBURSEMENTS, REPORTS, AND RECORDS". THIS LIMITATION WILL APPLY TO CONTRACT, TORT, AND ANY OTHER CLAIM OF WHATEVER NATURE.

13. GENERAL PROVISIONS

13.1 Amendment and Waiver. This Agreement may be amended from time to time only by a written instrument signed by the Parties. No term or provision of this Agreement will be waived, and no breach excused, unless such waiver or consent is in writing and signed by the Party claimed to have waived or consented. No waiver of a breach will be deemed to be a waiver of a different or subsequent breach.

13.2 Assignment. The rights and licenses granted by University in this Agreement are personal to Company and Company will not assign its interest or delegate its duties under this Agreement without the written consent of University; any such assignment or delegation made without written consent of University will not release Company from its obligations under this Agreement. Notwithstanding the foregoing, Company, without the prior approval of University, may extend all, but no less than all, of its rights and delegate all, but no less than all, of its duties under this Agreement to a Third Party provided that: (a) the assignment is made to such Third Party as a part of and in connection with an Acquisition, (b) Company obtains from such Third Party written agreement to honor all obligations under this Agreement accrued by Company before Acquisition and all obligations under this Agreement to accrue by such Third Party assignee after Acquisition, and (c) Company provides written notice to University of the Acquisition, together with a substitution of parties document or copy of the assignment confirming compliance with (b) above, no later than thirty (30) days after the close of the Acquisition. Any assignment made in violation of this Section 13.2 "Assignment" is void and will constitute an act of breach that requires remedy under Section 9.2 "Termination by University". This Agreement will inure to the benefit of Company and University and their respective permitted assignees and trustees.

13.3 Confidentiality.

13.3.1 Form of Transfer. Confidential Information may be conveyed in tangible or intangible form. Disclosing Party must clearly mark its Confidential Information "confidential". If disclosing Party communicates Confidential Information in non-written form, it will reduce such communications to writing, clearly mark it "confidential", and provide a copy to receiving Party within thirty (30) days of original communication at the address in Section 13.9 "Notices". Any business information delivered by Company as required under this Agreement shall be deemed marked "confidential", whether or not such confidential marking appears.

13.3.2 No Unauthorized Disclosure of Confidential Information. Beginning on the Effective Date and continuing throughout the term of this Agreement and thereafter for a period of five (5) years, receiving Party will not disclose or otherwise make known or available to any Third Party any of disclosing Party's Confidential Information, without the express prior written consent of disclosing Party. Notwithstanding the foregoing, receiving Party will be permitted to disclose Confidential Information of disclosing Party to (i) actual or potential investors, lenders, consultants, advisors, collaborators, Sublicensees, or development partners, which disclosure will be made under conditions of confidentiality and limited use and (ii) its attorney or agent as reasonably required. In no event will receiving Party incorporate or otherwise use disclosing Party's Confidential Information in connection with any patent application filed by or on behalf of receiving Party. Receiving Party will restrict the use of disclosing Party's Confidential Information to uses exclusively in accordance with the terms of this Agreement. Receiving Party will use reasonable procedures to safeguard disclosing Party's Confidential Information. In the case where Company is the receiving Party, Company's confidentiality obligations will also apply equally to Sublicensees.

13.3.3 Access to University Information. University is an agency of the state of Washington and is subject to the Washington Public Records Act, RCW 42.56 et seq., ("**Act**"), and no obligation assumed by University under this Agreement will be deemed to be inconsistent with University's obligations as defined under the Act and as interpreted by University in its sole discretion. If University receives a request for public records under the Act for documents containing Company's Confidential Information, and if University concludes that the documents are not otherwise exempt from public disclosure, University will provide Company notice of the request before releasing such documents. Such notice will be provided in a timely manner to afford Company sufficient time to review such documents and/or seek a protective order, at Company's expense utilizing the procedures described in RCW 42.56.540. University will have no other obligation to protect Company's Confidential Information from disclosure in response to a request for public records.

13.3.4 Disclosure as Required by Law. The receiving Party will have the right to disclose the other Party's Confidential Information as required by law or valid court order, provided that the receiving Party will inform the Party who owns such Confidential Information prior to such disclosure, will cooperate with the such other Party's efforts to limit or avoid disclosure, and will limit the scope and recipient of disclosure to that required by such law or court order.

13.4 Consent and Approvals. Except as otherwise expressly provided in this Agreement, all consents or approvals required under the terms of this Agreement must be in writing and will not be unreasonably withheld or delayed.

13.5 Construction. The headings preceding and labeling the sections of this Agreement are for the purpose of identification only and will not in any event be employed or used for the purpose of construction or interpretation of any portion of this Agreement. As used herein and where necessary, the singular includes the plural and vice versa, and masculine, feminine, and neuter expressions are interchangeable, and the word "including" shall mean "including, without limitation".

13.6 Enforceability. If a court of competent jurisdiction adjudges a provision of this Agreement unenforceable, invalid, or void, such determination will not impair the enforceability of any of the remaining provisions hereof and the provisions will remain in full force and effect.

13.7 No Third-Party Beneficiaries. No provision of this Agreement, express or implied, confers upon any person other than the Parties to this Agreement any rights, remedies, obligations, or liabilities hereunder. No Sublicensee will have a right to enforce or seek damages under this Agreement.

13.8 Language. Unless otherwise expressly provided in this Agreement, all notices, reports, and other documents and instruments that a Party elects or is required by the terms of this Agreement to deliver to the other Party will be in English.

13.9 Notices. All notices, requests, and other communications that a Party is required or elects to deliver will be in writing and will be delivered personally, or by facsimile or electronic mail (provided such delivery is confirmed), or by a recognized overnight courier service or by United States mail, first-class, certified or registered, postage prepaid, return receipt requested, to the other Party at its address set forth below or to another address as a Party may designate by notice given under this Section 13.9 "Notices":

If to University:	UW CoMotion ATTN: Director, Innovation Development 4545 Roosevelt Way NE, Suite 400 Seattle, WA 98105 Facsimile No.: 206-685-4767
If to Company:	Akoya Biosciences, Inc. Attn: Brian McKelligon, CEO 1505 O'Brien Drive, Suite A-1 Menlo Park, CA 94025 E-mail: bmckelligon@akoyabio.com
	CC:
	Wilson Sonsini Goodrich and Rosati 650 Page Mill Road Palo Alto, CA 94304 Attn: Vern Norviel (which shall not constitute notice)

13.10 Proprietary Markings. Company will mark all material forms of Licensed Products or packaging pertaining thereto made and sold by Company in the United States with patent marking conforming to 35 U.S.C. §287(a), as amended from time to time. All Licensed Product(s) shipped to or sold in other countries will be marked in such a manner as to provide notice to potential infringers pursuant to the patent law and practice of the country of manufacture or sale.

13.11 Use of University's Name and Trademarks or the Names of University Faculty, Staff, or Students. No provision of this Agreement grants Company or Sublicensee any right or license to use the name or trademarks of University or the names or identities of any member of the faculty, staff, or student body of University. Notwithstanding the foregoing, Company may provide factual information regarding the existence of this Agreement.

13.12 Publicity. The Parties will cooperate with one another to review and respond to any press release or similar communication proposed by the other Party regarding the non-confidential subject matter of this Agreement. The specific content and timing of such press releases or similar communication is subject to mutual agreement by the Parties, which will not be unreasonably withheld. Further, University and Company will issue a joint press release regarding this Agreement, subject to both Party's review and approval of the specific content thereof, and such press release will include specific mention of the contributions of University personnel and University in developing the technology in a prominent portion of the press release. Company will provide University with appropriate quotes for such press release. University may post the press release in digital and print publications as well as on University's own website.

13.13 Relationship of Parties. In entering into, and performing their duties under, this Agreement, the Parties are acting as independent contractors and independent employers. No provision of this Agreement will create or be construed as creating a partnership, joint venture, or agency relationship between the Parties. No Party will have the authority to act for or bind the other Party in any respect.

13.14 Relationship with Principal Investigator. Company acknowledges that Principal Investigator is employed by University and has certain pre-existing obligations to University, including obligations with respect to disclosure and ownership of intellectual property and obligations arising from sponsored research agreements between University and Third Parties. Accordingly, Company agrees that to the extent that any consulting agreement between Company and Principal Investigator is inconsistent with any of Principal Investigator's obligations to University, including the reporting of all inventions developed while employed by University (regardless of where arising) and including contractual obligations arising under any sponsored research agreements between University and Third Parties, then Principal Investigator's obligations to University will prevail and to such extent any inconsistent provisions of such consulting agreement will be deemed inapplicable and unenforceable.

13.15 Security Interest. In no event will Company grant, or permit any person to assert or perfect, a security interest in the Licensed Rights; however, Company may grant or permit a security interest in the Company's rights under this Agreement.

13.16 Survival. The obligations specified in Article 6 "Payments, Reimbursements, Reports, and Records" will survive termination of this Agreement provided Reports will not be required for any period in which there are no Net Sales other than the final report due under Section 9.6 "Final Report to University". The obligations and rights set forth in Article 9 "Termination"; Article 10 "Release, Indemnification, and Insurance"; Article 11 "Warranties"; Article 12 "Damages"; Section 13.3 "Confidentiality", Section 13.16 "Survival", Section 13.18 "Applicable Law", and Section 13.19 "Forum Selection" will survive the termination or expiration of this Agreement.

13.17 Collection Costs and Attorneys' Fees. If a Party fails to perform an obligation or otherwise breaches one or more of the terms of this Agreement, the other Party may recover from the non-performing breaching Party all its costs (including actual attorneys' and investigative fees) to enforce the terms of this Agreement.

13.18 Applicable Law. The internal laws of the state of Washington will govern the validity, construction, and enforceability of this Agreement, without giving effect to the conflict of laws principles thereof.

13.19 Forum Selection. Any suit, claim, or other action to enforce the terms of this Agreement will be brought exclusively in the state and federal courts of King County, Washington. Company hereby submits to the jurisdiction of that court and waives any objections it may have to that court asserting jurisdiction over Company or its assets and property.

13.20 Counterparts. This Agreement may be executed by facsimile and in identical counterparts, each of which (including signature pages) will be deemed an original, but all of which together will constitute one and the same instrument. A facsimile, scanned, or photocopied signature (and any signature duplicated in another similar manner) identical to the original will be considered an original signature.

13.21 Entire Agreement. Company has evaluated the Licensed Rights under an Exclusive Option Agreement ("**Exclusive Option Agreement**") with University (UW ref: 42407A), dated March 1, 2018. This Agreement (including all attachments, exhibits, and amendments) is the final and complete understanding between the Parties concerning licensing the Licensed Rights. This Agreement supersedes any and all prior or contemporaneous negotiations, representations, and agreements, whether written or oral, concerning the Licensed Rights. However, the obligations of nondisclosure for Confidential Information disclosed under the Exclusive Option Agreement will survive as determined by the Exclusive Option Agreement. Confidential Information disclosed under this Agreement will be governed by the terms of this Agreement. This Agreement may not be modified in any manner, except by written agreement signed by an authorized representative of both Parties.

[SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their respective authorized representatives.

University of Washington		University of Washington	
By:	s/ Fiona Wills	By:	s/ Brian McKelligon
Name:	Fiona Wills	Name:	Brian McKelligon
Title:	Director, Innovation Development	Title:	CEO
Date:	6/28/2018	Date:	6/28/2018

Exhibit A

Exclusive License Schedule

A1. Licensed Rights:

A1.1 Licensed Patents:

UW Reference #	Patent Serial #	Priority Date	Type	Status
[***]	US8,946,389	4/25/2011	US Nonprovisional	Issued
[***]	US9,376,717	4/25/2011	US Nonprovisional	Issued

A2. Performance Milestones (Section 5.1 "Performance Milestones"): Company or any of its Sublicensees will meet the following Performance Milestones for Licensed Products in the Field of Use:

	Performance Milestone
A2.1 Performance Milestone 1 ("**MS1**")	Build and test Licensed Product prototype commercial units and complete pre-commercial software package by March 31, 2019
A2.2 Performance Milestone 2 ("**MS2**")	First Commercial Sale of a Licensed Product will be achieved by January 1, 2020.
A2.3 Performance Milestone 3 ("**MS3**")	First Commercial Sale with respect to Licensed Product to a CLIA certified clinical laboratory for clinical use will be achieved by January 1, 2021.
A2.4 Performance Milestone 4 ("**MS4**")	Cumulative sales of Licensed Products of $[***] will be achieved by January 1, 2022.
A2.5 Performance Milestone 5 ("**MS5**")	First Commercial Sale with respect to a Licensed Product for detection of non-protein analytes will be achieved by July 1, 2023.

A3. Payments (Section 6.1):

A3.1 Up-front Payment. Company shall pay to University within 14 days of the Effective Date fifteen thousand US dollars ($[***]) as an up-front payment. This up-front payment shall be non-refundable and not creditable against future royalty obligations.

A3.2 Running Royalty Payments**. Company will pay to University within thirty (30) days after the last day of each calendar quarter during the term of this Agreement an amount equal to two and three quarters of a percent ([***]%) of Net Sales during such quarter as a running royalty payment**.

A3.2.1 Unaffiliated Third Party Royalties. If Company or its Sublicensees are required to pay royalties to an Unaffiliated Third Party based on Company's or such Sublicensee's manufacture, use, offer for sale, sale or import of Licensed Product subject to one or more patents of such Unaffiliated Third Party that create a total royalty burden for the Licensed Product of greater than three and three quarters of a percent ([***]%), then the royalty Company pays to University may be reduced by the lesser of (i) fifty percent ([***]%) of the royalty otherwise due to the University absent of an Unaffiliated Third Party royalty reduction, (ii) fifty percent ([***]%) of the royalty actually paid to such Unaffiliated Third Party, or (iii) the percent by which Company may reduce such Unaffiliated Third Party royalty, based on a royalty stacking provision for the same product, in a license agreement between Company and such Unaffiliated Third Party. To qualify for this reduction the Unaffiliated Third Party patent must be required for the manufacture, use, offer for sale, sale or import of the Licensed Product in the Territory.

A3.3 Minimum Annual Fees. **Company will pay minimum annual fees for the term of this Agreement to be creditable against running royalty payments and sharing of Sublicense Consideration for the preceding calendar year on a non-cumulative basis and to be due in full and payable on January 31st of each year beginning on January 31st of the year following the first anniversary of the Effective Date and continuing during the term of this Agreement according to the following schedule:**

Calendar Year	Minimum Annual Royalty
Following 1st anniversary of Effective Date and each year thereafter until First Commercial Sale	$ [***]
Following 1st anniversary of the First Commercial Sale	$ [***]
Following 2nd anniversary of First Commercial Sale	$ [***]
Following 3rd anniversary of First Commercial Sale and each year thereafter	$ [***]

A3.3.1 If this Agreement is terminated prior to the payment of a minimum annual royalty in any given year the amount due for that minimum annual royalty payment will be prorated on the basis of the number of full quarters that have elapsed prior to termination since the last payment of a minimum annual royalty.

A3.4 Patent Expense Payment. Company will pay, or reimburse University for paying, all Patent Expenses incurred before, on or after the Effective Date within thirty (30) days of its receipt of University's invoice for such Patent Expenses. University reserves the right to request advance payments for certain Patent Expenses, at University's discretion. The amount of unreimbursed Patent Expenses invoiced to University prior to the Effective Date is approximately thirty thousand forty nine US dollars and seventy six cents ($[***]).

A3.5 Financial Milestones. **Company will pay to University the following non-cumulative, non-creditable, and non-refundable milestone achievement payments within thirty (30) days of achieving the corresponding milestone, whether achieved by Company or a Sublicensee:**

		Milestone
$	[***]	Solely the earlier of MS2 or MS3
$	[***]	MS4

A3.6 Sublicense Consideration. **Within thirty (30) days of the end of each calendar quarter during the term of this Agreement, Company will pay to University fifty percent ([***]%) of any Sublicense Consideration received by Company during such calendar quarter unless reduced by achievement of milestones by Company or its Sublicensees prior to execution of the particular Sublicense in accordance with the schedule below**.

	Milestone Has Been Achieved at the Date of Execution of the Sublicense	Sublicense Consideration Percentage
A3.6.1 Milestone 1	MS1	[***]%
A3.6.2 Milestone 2	MS2 or MS3, whichever is met first	[***]%
A 3.6.3 Milestone 3	MS4	[***]%

Exhibit B

Royalty Report Form

[Date]

[Company Name & Address]

License Number:

Reporting Period: Report Due Date:

This report must be submitted regardless of whether royalties are owed.
Please do not leave any column blank. State all information requested below.

Product Description	Royalty Rate	Quantity/Net Sales	Royalty Due

Report Completed By: Total Royalties Due:

Telephone Number:

If you have question please contact:

Please make check payable to: University of Washington

Exhibit 10.14

Execution Version

CREDIT AND SECURITY AGREEMENT (TERM LOAN)

dated as of October 27, 2020

by and among

AKOYA BIOSCIENCES, INC.,

and any additional borrower that hereafter becomes party hereto, each as Borrower, and collectively as Borrowers,

and

MIDCAP FINANCIAL TRUST,

as Agent and as a Lender,

and

THE ADDITIONAL LENDERS

FROM TIME TO TIME PARTY HERETO

TABLE OF CONTENTS

CREDIT AND SECURITY AGREEMENT (TERM LOAN)

This **CREDIT AND SECURITY AGREEMENT (TERM LOAN)** (as the same may be amended, supplemented, restated or otherwise modified from time to time, the "**Agreement**") is dated as of October 27, 2020 by and among **AKOYA BIOSCIENCES, INC.**, a Delaware corporation, and each additional borrower that may hereafter be added to this Agreement (each individually as a "**Borrower**", and collectively with any entities that become party hereto as Borrower and each of their successors and permitted assigns, the "**Borrowers**"), **MIDCAP FINANCIAL TRUST**, a Delaware statutory trust, individually as a Lender, and as Agent, and the financial institutions or other entities from time to time parties hereto, each as a Lender.

RECITALS

Borrowers have requested that Lenders make available to Borrowers the financing facilities as described herein. Lenders are willing to extend such credit to Borrowers under the terms and conditions herein set forth.

AGREEMENT

NOW, THEREFORE, in consideration of the premises and the agreements, provisions and covenants herein contained, Borrowers, Lenders and Agent agree as follows:

ARTICLE 1 - DEFINITIONS

Section 1.1 Certain Defined Terms. The following terms have the following meanings:

"**Acceleration Event**" means the occurrence of an Event of Default (a) in respect of which Agent has declared all or any portion of the Obligations to be immediately due and payable pursuant to Section 10.2, (b) pursuant to Section 10.1(a), and in respect of which Agent has suspended or terminated the Term Loan Commitment pursuant to Section 10.2, and/or (c) pursuant to either Section 10.1(e) and/or Section 10.1(f).

"**Account Debtor**" means "account debtor", as defined in Article 9 of the UCC, and any other obligor in respect of an Account.

"**Accounts**" means, collectively, (a) any right to payment of a monetary obligation, whether or not earned by performance, (b) without duplication, any "account" (as defined in the UCC), any accounts receivable (whether in the form of payments for services rendered or goods sold, rents, license fees or otherwise), any "health-care-insurance receivables" (as defined in the UCC), any "payment intangibles" (as defined in the UCC) and all other rights to payment and/or reimbursement of every kind and description, whether or not earned by performance, (c) all accounts, "general intangibles" (as defined in the UCC), Intellectual Property, rights, remedies, Guarantees, "supporting obligations" (as defined in the UCC), "letter-of-credit rights" (as defined in the UCC) and security interests in respect of the foregoing, all rights of enforcement and collection, all books and records evidencing or related to the foregoing, and all rights under the Financing Documents in respect of the foregoing, and (d) all proceeds of any of the foregoing.

"**Acquisition**" means any transaction or series of related transactions for the purpose of or resulting, directly or indirectly, in (a) the acquisition (including through licensing) of all or substantially all of the assets of a Person, or of any business, line of business or division or other unit of operation of a Person, (b) the acquisition of fifty percent (50%) or more of the Equity Interests of any Person, whether or not involving a merger or consolidation with such other Person, or otherwise causing any Person to become a Subsidiary of a Borrower, (c) any merger or consolidation or any other combination with another Person or (d) the acquisition (including through licensing) of any Product, Product line or Intellectual Property of or from any other Person (but in each case excluding in-bound licenses and purchases of over-the-counter and other software that is commercially available to the public, open source licenses and enabling licenses in the Ordinary Course of Business).

"**Additional Titled Agents**" has the meaning set forth in Section 11.15.

"**Affiliate**" means, with respect to any Person, (a) any Person that directly or indirectly controls such Person, (b) any Person which is controlled by or is under common control with such controlling Person, and (c) each of such Person's (other than, with respect to any Lender, any Lender's) officers or directors (or Persons functioning in substantially similar roles). As used in this definition, the term "control" of a Person means the possession, directly or indirectly, of the power to vote twenty percent (20%) or more of any class of voting securities of such Person or to direct or cause the direction of the management or policies of a Person, whether through the ownership of voting securities, by contract or otherwise.

"**Agent**" means MCF, in its capacity as administrative agent for itself and for Lenders hereunder, as such capacity is established in, and subject to the provisions of, Article 11, and the successors and assigns of MCF in such capacity.

"**Anti-Terrorism Laws**" means any Laws relating to terrorism or money laundering, including, without limitation, Executive Order No. 13224 (effective September 24, 2001), the USA PATRIOT Act, the Laws comprising or implementing the Bank Secrecy Act and the Laws administered by OFAC.

"**Applicable Margin**" means six and thirty-five one hundredths of one percent (6.35%).

"**Approved Fund**" means any (a) investment company, fund, trust, securitization vehicle or conduit that is (or will be) engaged in making, purchasing, holding or otherwise investing in commercial loans and similar extensions of credit in the ordinary course of business, or (b) any Person (other than a natural person) which temporarily warehouses loans for any Lender or any entity described in the preceding clause (a) and that, with respect to each of the preceding clauses (a) and (b), is administered or managed by (i) a Lender, (ii) an Affiliate of a Lender, or (iii) a Person (other than a natural person) or an Affiliate of a Person (other than a natural person) that administers or manages a Lender.

"**Asset Disposition**" means any sale, lease, license, transfer, assignment or other consensual disposition (including by merger, allocation of assets (including allocation of assets to any series of a limited liability company), division, consolidation or amalgamation) by any Credit Party or any Subsidiary thereof of any asset of such Credit Party or such Subsidiary.

"**Assignment Agreement**" means an assignment agreement in form and substance acceptable to Agent.

"**Bail-In Action**" means the exercise of any Write-Down and Conversion Powers by the applicable EEA Resolution Authority in respect of any liability of an EEA Financial Institution.

"**Bail-In Legislation**" means, with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule

"**Bankruptcy Code**" means Title 11 of the United States Code entitled "Bankruptcy", as the same may be amended, modified or supplemented from time to time, and any successor statute thereto.

"**Base LIBOR Rate**" means, for each Interest Period, the rate per annum, determined by Agent in accordance with its customary procedures, and utilizing such electronic or other quotation sources as it considers appropriate (rounded upwards, if necessary, to the next 1/100%), to be the rate at which Dollar deposits (for delivery on the first day of such Interest Period) in the amount of $1,000,000 are offered to major banks in the London interbank market on or about 11:00 a.m. (London time) two (2) Business Days prior to the commencement of such Interest Period, for a term comparable to such Interest Period, which determination shall be conclusive in the absence of manifest error; *provided*, *however*, if (a) the administrator responsible for determining and publishing such rate per annum, determined by Agent in accordance with its customary procedures, has made a public announcement identifying a date certain on or after which such rate shall no longer be provided or published, as the case may be; or (b) timely, adequate and reasonable means do not exist for ascertaining such rate and the circumstances giving rise to the Agent's inability to ascertain LIBOR are unlikely to be temporary as determined in Agent's reasonable discretion, then Agent may, upon prior written notice to Borrower Representative, choose, in consultation with Borrower, a reasonably comparable index or source together with corresponding adjustments to "Applicable Margin" or scale factor, spread adjustment or floor to such index that Agent, in its reasonable discretion, has determined is necessary to preserve (but, for the avoidance of doubt, not increase) the current all-in rate of interest (including, interest rate margins, any interest rate floors, but without regard to future fluctuations of such alternative index, it being acknowledged and agreed that neither Agent nor any Lender shall have any liability whatsoever from such future fluctuations) to use as the basis for Base LIBOR Rate.

"**Base Rate**" means a per annum rate of interest equal to the greater of (a) one and one half percent (1.50%) per annum and (b) (i) a per annum rate of interest equal to the rate of interest announced, from time to time, within Wells Fargo Bank, National Association ("**Wells Fargo**") at its principal office in San Francisco as its "prime rate," with the understanding that the "prime rate" is one of Wells Fargo's base rates (not necessarily the lowest of such rates) and serves as the basis upon which effective rates of interest are calculated for those loans making reference thereto and is evidenced by the recording thereof after its announcement in such internal publications as Wells Fargo may designate; *provided*, *however*, that Agent may, upon prior written notice to Borrower, choose a reasonably comparable index or source to use as the basis for the Base Rate; *minus* (ii) the amount by which the average daily prime rate during the twelve-month period immediately preceding the first occurrence of an Eurodollar Disruption Event exceeded the average daily LIBOR Rate during such period.

"**Blocked Person**" means any Person: (a) listed in the annex to, or is otherwise subject to the provisions of, Executive Order No. 13224, (b) owned or controlled by, or acting for or on behalf of, any Person that is listed in the annex to, or is otherwise subject to the provisions of, Executive Order No. 13224, (c) with which any Lender is prohibited from dealing or otherwise engaging in any transaction by any Anti-Terrorism Law, (d) that commits, threatens or conspires to commit or supports "terrorism" as defined in Executive Order No. 13224, or (e) that is named a "specially designated national" or "blocked person" on the most current list published by OFAC or other similar list or is named as a "listed person" or "listed entity" on other lists made under any Anti-Terrorism Law.

"**Borrower**" and "**Borrowers**" has the meaning set forth in the introductory paragraph hereto.

"**Borrower Representative**" means Akoya Biosciences, Inc., in its capacity as Borrower Representative pursuant to the provisions of Section 2.9, or any successor Borrower Representative selected by Borrowers and approved by Agent.

"**Borrower Unrestricted Cash**" means unrestricted cash and Cash Equivalents of Borrowers that are (a) subject to a first priority perfected lien in favor of Agent for the benefit of Lenders, (b) held in the name of a Borrower in a Deposit Account or Securities Account located in the United States that, in each case, is subject to a Deposit Account Control Agreement or Securities Account Control Agreement (as applicable), and (c) not funds for the payment of a drawn or committed but unpaid draft, ACH or EFT transaction.

"**Business Day**" means any day except a Saturday, Sunday or other day on which either the New York Stock Exchange is closed, or on which commercial banks in New York, New York are authorized by Law to close and, in the case of a Business Day which relates to a determination of the LIBOR Rate, a day on which dealings are carried on in the London interbank eurodollar market.

"**Capital Lease**" of any Person means any lease of any property by such Person as lessee which would, in accordance with GAAP, be required to be accounted for as a capital lease on the balance sheet of such Person.

"**Cash Equivalents**" means, as of any date of determination, any of the following: (a) marketable securities (i) issued or directly and unconditionally guaranteed as to interest and principal by the United States government, or (ii) issued by any agency of the United States the obligations of which are backed by the full faith and credit of the United States, in each case maturing within one (1) year after such date; (b) marketable direct obligations issued by any state of the United States or any political subdivision of any such state or any public instrumentality thereof, in each case maturing within one (1) year after such date and having, at the time of the acquisition thereof, a rating of at least A-1 from S&P or at least P-1 from Moody's; (c) commercial paper maturing no more than one (1) year from the date of creation thereof and having, at the time of the acquisition thereof, a rating of at least A-1 from S&P or at least P-1 from Moody's, or carrying an equivalent rating by a nationally recognized rating agency, if both of the two named rating agencies cease publishing ratings of commercial paper issuers generally; (d) certificates of deposit or bankers' acceptances maturing within one (1) year after such date and issued or accepted by any Lender or by any commercial bank organized under the laws of the United States or any state thereof or the District of Columbia that (i) is at least "adequately capitalized" (as defined in the regulations of its primary federal banking regulator), and (ii) has Tier 1 capital (as defined in such regulations) of not less than $100,000,000; and (e) shares of any money market mutual fund that (i) has substantially all of its assets invested continuously in the types of investments referred to in clauses (a) and (b) above, (ii) has net assets of not less than $500,000,000, and (iii) has the highest rating obtainable from either S&P or Moody's.

"**CERCLA**" means the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C.A. § 9601 *et seq*., as the same may be amended from time to time.

"**Change in Control**" means an event or series of events by which: (a) except for THP and its controlled Affiliates, any "person" or "group" (as such terms are used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934) becomes the "beneficial owner" (as defined in Rules 13d-3 and 13d-5 under the Securities Exchange Act of 1934, except that a person or group shall be deemed to have "beneficial ownership" of all securities that such person or group has the right to acquire, whether such right is exercisable immediately or only after the passage of time (such right, an "option right")), directly or indirectly, of fifty percent (50%) or more of the combined voting power of all voting stock of Akoya Biosciences, Inc., or any other Borrower (as applicable) on a fully-diluted basis (and taking into account all such securities that such person or group has the right to acquire pursuant to any option right); (b) during any period of twelve (12) consecutive months, a majority of the members of the board of directors or other equivalent governing body of Borrower cease to be composed of individuals (i) who were members of that board or equivalent governing body on the first day of such period, (ii) whose election or nomination to that board or equivalent governing body was approved by individuals referred to in clause (i) above constituting at the time of such election or nomination at least a majority of that board or equivalent governing body or (iii) whose election or nomination to that board or other equivalent governing body was approved by individuals referred to in clauses (i) and (ii) above constituting at the time of such election or nomination at least a majority of that board or equivalent governing body; (c) Borrower ceases to own and control, directly or indirectly, all of the economic and voting rights associated with the outstanding securities of each of its Subsidiaries (except as otherwise permitted by this Agreement), or (d) the occurrence of a "Change of Control", "Fundamental Change", "Change in Control", "Deemed Liquidation Event" or terms of similar import under any document or instrument governing or relating to Debt of or Equity Interests of such Person, as such documents may be amended or otherwise modified from time to time in accordance with the terms of this Agreement.

"**Closing Date**" means the date of this Agreement.

"**Code**" means the Internal Revenue Code of 1986, as amended from time to time.

"**Collateral**" means all property, other than Excluded Property, now existing or hereafter acquired, mortgaged or pledged to, or purported to be subjected to a Lien in favor of, Agent, for the benefit of Agent and Lenders, pursuant to this Agreement and the Security Documents, including, without limitation, all of the property described in Schedule 9.1 hereto.

"**Commitment Annex**" means Annex A to this Agreement.

"**Competitor**" means, at any time of determination, (a) any Person that is directly engaged in the same or substantially the same line of business as the Borrower or any of its material Subsidiaries and (b) each Person identified as a competitor on the list delivered to Agent by the Borrowers prior to the Closing Date. For the purposes of clarification, only a Person that is described in clause (a) above or a Person that either directly owns more than 50% of the voting securities of a Person described in clause (a) above or is wholly owned direct or indirect subsidiary of such a Person will be considered to be a Competitor for the purposes of this Agreement. Furthermore, notwithstanding anything herein to the contrary, under no circumstances will a Person that is primarily in the business of lending money or extending credit be considered a Competitor regardless of whether or not any of its Affiliates may be deemed to be a Competitor.

"**Compliance Certificate**" means a certificate, duly executed by a Responsible Officer of Borrower Representative, appropriately completed and substantially in the form of Exhibit B hereto.

"**Connection Income Taxes**" means Other Connection Taxes that are imposed on or measured by net income (however denominated) or that are franchise Taxes or branch profits Taxes.

"**Consolidated Subsidiary**" means, at any date, any Subsidiary the accounts of which would be consolidated with those of "parent" Borrower (or any other Person, as the context may require hereunder) in its consolidated financial statements if such statements were prepared as of such date.

"**Contingent Obligation**" means, with respect to any Person, any direct or indirect liability of such Person: (a) with respect to any Debt of another Person (a "**Third Party Obligation**") if the purpose or intent of such Person incurring such liability, or the effect thereof, is to provide assurance to the obligee of such Third Party Obligation that such Third Party Obligation will be paid or discharged, or that any agreement relating thereto will be complied with, or that any holder of such Third Party Obligation will be protected, in whole or in part, against loss with respect thereto; (b) with respect to any undrawn portion of any letter of credit issued for the account of such Person or as to which such Person is otherwise liable for the reimbursement of any drawing; (c) under any Swap Contract, to the extent not yet due and payable; (d) to make take-or-pay or similar payments if required regardless of nonperformance by any other party or parties to an agreement; or (e) for any obligations of another Person pursuant to any Guarantee or pursuant to any agreement to purchase, repurchase or otherwise acquire any obligation or any property constituting security therefor, to provide funds for the payment or discharge of such obligation or to preserve the solvency, financial condition or level of income of another Person. The amount of any Contingent Obligation shall be equal to the amount of the obligation so Guaranteed or otherwise supported or, if not a fixed and determinable amount, the maximum amount so Guaranteed or otherwise supported.

"**Controlled Group**" means all members of a group of corporations and all members of a group of trades or businesses (whether or not incorporated) under common control which, together with the Credit Parties, are treated as a single employer under Section 414(b), (c), (m) or (o) of the Code or Section 4001(b) of ERISA and, solely for purposes of Section 412 and 436 of the Code, Section 414(m) or (o) of the Code.

"**Correction**" means repair, modification, adjustment, relabeling, destruction or inspection (including patient monitoring) of a Product without its physical removal to some other location.

"**Credit Card Cash Collateral Account**" means, collectively, each segregated Deposit Account from time to time identified to Agent in writing established by Borrower for the sole purpose of securing Borrower's obligations under clause (h) of the definition Permitted Debt and containing only such cash or Cash Equivalents that have been required to be pledged to secure such obligations of Borrower; *provided*, that the aggregate amount of cash or Cash Equivalents deposited in all such Credit Card Cash Collateral Account(s) does not, at any time, exceed $500,000 in the aggregate.

"**Credit Party**" means each Borrower and each Guarantor and "**Credit Parties**" means all such Persons, collectively; *provided*, *however*, that in no event shall a Restricted Foreign Subsidiary be a "Credit Party" for purposes of this Agreement or the other Financing Documents.

"**DEA**" means the Drug Enforcement Administration of the United States of America, any comparable state or local Governmental Authority, any comparable Governmental Authority in any non-United States jurisdiction, and any successor agency of any of the foregoing.

"**Debt**" of a Person means at any date, without duplication, (a) all obligations of such Person for borrowed money, (b) all obligations of such Person evidenced by bonds, debentures, notes or other similar instruments, (c) all obligations of such Person to pay the deferred purchase price of property or services, except trade accounts payable arising and paid on a timely basis and in the Ordinary Course of Business, (d) all capital leases of such Person, (e) all non-contingent obligations of such Person to reimburse any bank or other Person in respect of amounts paid under a letter of credit, banker's acceptance or similar instrument, (f) all Disqualified Equity Interests, (g) all obligations secured by a Lien on any asset of such Person, whether or not such obligation is otherwise an obligation of such Person, (h) "earnouts", purchase price adjustments, profit sharing arrangements, deferred purchase money amounts and similar payment obligations or continuing obligations of any nature of such Person arising out of purchase and sale contracts entered into in connection with an Acquisition or any other material commercial or licensing transaction (*provided* that the amount of such indebtedness shall be deemed to be the amount that is required to be reflected on the balance sheet of such Person in accordance with GAAP), (i) all Debt of others Guaranteed by such Person, and (j) obligations in respect of litigation settlement agreements or similar arrangements. Without duplication of any of the foregoing, Debt of Borrowers shall include any and all Loans.

"**Default**" means any condition or event which with the giving of notice or lapse of time or both would, unless cured or waived, become an Event of Default.

"**Defaulted Lender**" means, so long as such failure shall remain in existence and uncured, any Lender which shall have failed to make any Loan or other credit accommodation, disbursement, settlement or reimbursement required pursuant to the terms of any Financing Document.

"**Defined Period**" means for any given calendar month, the immediately preceding twelve (12) month period ending on the last day of such calendar month.

"**Deposit Account**" means a "deposit account" (as defined in Article 9 of the UCC), an investment account, or other account in which funds are held or invested for credit to or for the benefit of any Credit Party.

"**Deposit Account Control Agreement**" means an agreement, in form and substance reasonably satisfactory to Agent, among Agent, any Borrower and each financial institution in which such Borrower maintains a Deposit Account, pursuant to which Agent obtains control (within the meaning of the UCC, as applicable) for the benefit of the Lenders over such Deposit Account and which agreement provides that (a) such financial institution shall comply with instructions originated by Agent directing disposition of the funds in such Deposit Account without further consent by the applicable Borrower, and (b) such financial institution shall agree that it shall have no Lien on, or right of setoff or recoupment against, such Deposit Account or the contents thereof, other than in respect of usual and customary service fees and returned items for which Agent has been given value, in each case expressly consented to by Agent, and containing such other terms and conditions as Agent may reasonably require.

"**Disqualified Equity Interests**" means, with respect to any Person, any Equity Interest in such Person that within less than 91 days after the Termination Date, either by its terms (or by the terms of any security or any other Equity Interest into which it is convertible or for which it is exchangeable) or upon the happening of any event or condition, (a) matures or is mandatorily redeemable (other than solely for Permitted Debt or other Equity Interests in such Person or of Akoya Biosciences, Inc. that do not constitute Disqualified Equity Interests and cash in lieu of fractional shares of such Equity Interests), pursuant to a sinking fund obligation or otherwise, (b) is redeemable at the option of the holder thereof, in whole or in part (other than solely for Permitted Debt or other Equity Interests in such Person or of Akoya Biosciences, Inc. that do not constitute Disqualified Equity Interests and cash in lieu of fractional shares of such Equity Interests), (c) provides for the scheduled payments of dividends or distributions in cash, or (d) is or becomes convertible into or exchangeable for Debt (other than Permitted Debt) or any other Equity Interest that would constitute Disqualified Equity Interests.

"**Distribution**" means as to any Person (a) any dividend or other distribution or payment (whether in cash, securities or other property) on, or in respect of, any Equity Interest in such Person (except those payable solely in its Equity Interests other than Disqualified Equity Interests), (b) any payment by such Person on account of (i) the purchase, redemption, retirement, defeasance, surrender, cancellation, termination or acquisition of any Equity Interests in such Person or any claim respecting the purchase or sale of any Equity Interest in such Person, or (ii) any option, warrant or other right to acquire any Equity Interests in such Person, (c) any management fees, salaries or other fees or compensation to any Person holding an Equity Interest in a Borrower or a Subsidiary of a Borrower (other than reasonable and customary (i) payments of salaries to individuals, (ii) directors fees, and (iii) advances and reimbursements to employees or directors, all in the Ordinary Course of Business), an Affiliate of a Borrower or an Affiliate of any Subsidiary of a Borrower, or (d) repayments of or debt service on loans or other indebtedness (other than conversion to Equity Interests other than Disqualified Equity Interests) held by an Affiliate of a Borrower (other than any Credit Party) unless permitted under and made pursuant to a Subordination Agreement applicable to such loans or other indebtedness.

"**Dollars**" or "**$**" means the lawful currency of the United States of America.

"**EEA Financial Institution**" means (a) any credit institution or investment firm established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country which is a parent of an institution described in clause (a) of this definition, or (c) any financial institution established in an EEA Member Country which is a subsidiary of an institution described in clauses (a) or (b) of this definition and is subject to consolidated supervision with its parent.

"**EEA Member Country**" means any of the member states of the European Union, Iceland, Liechtenstein, and Norway.

"**EEA Resolution Authority**" means any public administrative authority or any person entrusted with public administrative authority of any EEA Member Country (including any delegee) having responsibility for the resolution of any EEA Financial Institution.

"**Eligible Assignee**" means (a) a Lender, (b) an Affiliate of a Lender, (c) an Approved Fund, and (d) any other Person (other than a natural person) approved by Agent; *provided, however*, that notwithstanding the foregoing, (x) "**Eligible Assignee**" shall not include (i) any Credit Party or any of a Credit Party's Subsidiaries or (ii) any Competitor; *provided* that the restrictions on assignment set forth in this clause (ii) shall not apply if an Event of Default has occurred and is continuing under Section 10.1(a)(i) (Payment), 10.1(a)(ii) (solely with respect to a breach of Section 6 (financial covenants)), 10.1(e) & (f) (bankruptcy) or Section 10.1(o) (Material Adverse Effect), and (y) no proposed assignee intending to assume any unfunded portion of the Term Loan Commitment shall be an Eligible Assignee unless such proposed assignee either already holds a portion of such Term Loan Commitment, or has been approved as an Eligible Assignee by Agent.

"**Environmental Laws**" means any present and future federal, state and local laws, statutes, ordinances, rules, regulations, standards, policies and other governmental directives or requirements, as well as common law, pertaining to the environment, natural resources, pollution, health (including any environmental clean-up statutes and all regulations adopted by any local, state, federal or other Governmental Authority, and any statute, ordinance, code, order, decree, law rule or regulation all of which pertain to or impose liability or standards of conduct concerning medical waste or medical products, equipment or supplies), safety or clean-up that apply to any Borrower and relate to Hazardous Materials, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. § 9601 *et seq.*), the Resource Conservation and Recovery Act of 1976 (42 U.S.C. § 6901 *et seq.*), the Federal Water Pollution Control Act (33 U.S.C. § 1251 *et seq.*), the Hazardous Materials Transportation Act (49 U.S.C. § 5101 *et seq.*), the Clean Air Act (42 U.S.C. § 7401 *et seq.*), the Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. § 136 *et seq.*), the Emergency Planning and Community Right-to-Know Act (42 U.S.C. § 11001 *et seq.*), the Occupational Safety and Health Act (29 U.S.C. § 651 *et seq.*), the Residential Lead-Based Paint Hazard Reduction Act (42 U.S.C. § 4851 *et seq.*), any analogous state or local laws, any amendments thereto, and the regulations promulgated pursuant to said laws, together with all amendments from time to time to any of the foregoing and judicial interpretations thereof.

"**Equity Interests**" means, with respect to any Person, all shares of capital stock, partnership interests, membership interests in a limited liability company or other ownership in participation or equivalent interests (however designated, whether voting or non-voting) of such Person's equity capital (including any warrants, options or other purchase rights with respect to the foregoing), whether now outstanding or issued after the Closing Date

"**ERISA**" means the Employee Retirement Income Security Act of 1974, as the same may be amended, modified or supplemented from time to time, and any successor statute thereto, and any and all rules or regulations promulgated from time to time thereunder.

"**ERISA Plan**" means any "employee benefit plan", as such term is defined in Section 3(3) of ERISA (other than a Multiemployer Plan), which any Credit Party or any Subsidiary maintains, sponsors or contributes to, or, in the case of an employee benefit plan which is subject to Section 412 of the Code or Title IV of ERISA, to which any Credit Party or any Subsidiary has any liability, including on account of any member of the Controlled Group, including any liability by reason of having been a substantial employer within the meaning of Section 4063 of ERISA, or by reason of being deemed to be a contributing sponsor under Section 4069 of ERISA.

"**EU Bail-In Legislation Schedule**" means the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor person), as in effect from time to time.

"**Eurodollar Disruption Event**" means the occurrence of any of the following: (a) any Lender shall have notified Agent of a determination by such Lender that it would be contrary to law or to the directive of any central bank or other Governmental Authority (whether or not having the force of law) to obtain dollars in the London interbank market to fund any Loan, (b) the inability of any Lender to obtain timely information for purposes of determining the LIBOR Rate, (c) any Lender shall have notified Agent of a determination by such Lender that the rate at which deposits of dollars are being offered to such Lender in the London interbank market does not accurately reflect the cost to such Lender of making, funding or maintaining any Loan or (d) any Lender shall have notified Agent of the inability of such Lender to obtain dollars in the London interbank market to make, fund or maintain any Loan.

"**Event of Default**" has the meaning set forth in Section 10.1.

"**Excluded Accounts**" has the meaning set forth in Section 5.14(b).

"**Excluded Property"** means, collectively:

(a) any lease, license, contract, permit, letter of credit, purchase money arrangement, instrument or agreement to which any Credit Party is a party or any of its rights or interests thereunder if and to the extent that the grant of such security interest shall constitute a result in (i) the abandonment, invalidation or unenforceability of any right, title or interest of any Credit Party therein or (ii) result in a breach or termination pursuant to the terms of, or default under, any such lease, license, contract, permit, letter of credit, purchase money arrangement, instrument or agreement;

(b) any governmental licenses or state or local franchises, charters and authorizations, to the extent that Agent may not validly possess a security interest in any such license, franchise, charter or authorization under applicable Law;

(c) more than 65% the voting capital stock of any Restricted Foreign Subsidiary to the extent that the grant of a security interest in excess of such percentage to secure the Obligations would cause material adverse tax consequences for such Borrower under the Code; *provided* that immediately upon any amendment of the Code that would allow the pledge of a greater percentage of such voting stock without material adverse tax consequences to such Borrower, "Collateral" shall automatically and without further action required by, and without notice to, any Person include such greater percentage of voting stock of such Restricted Foreign Subsidiary from that time forward;

(d) any asset which is subject to a purchase money Lien or Capital Lease permitted hereunder to the extent the granting of a security interest in such asset is prohibited pursuant to the terms of the contract governing such purchase money Lien or Capital Lease; and

(e) any "intent-to-use" trademarks or service mark applications for which an amendment to allege use or statement of use has not been filed under 15 U.S.C. § 1051 Section 1(c) or Section 1(d), respectively or if filed, has not been deemed in conformance with 15 U.S.C. § 1051(a) or examined and accepted, respectively by the United States Patent and Trademark Office;

provided that (x) any such limitation described in the foregoing clauses (a) and (b) on the security interests granted hereunder shall apply only to the extent that any such prohibition could not be rendered ineffective pursuant to the UCC or any other applicable Law (including Sections 9-406, 9-407 and 9-408 of the UCC) or principles of equity, (y) in the event of the termination or elimination of any such prohibition or the requirement for any consent contained in such contract, agreement, permit, lease or license or in any applicable Law, to the extent sufficient to permit any such item to become Collateral hereunder, or upon the granting of any such consent, or waiving or terminating any requirement for such consent, a security interest in such contract, agreement, permit, lease, license, franchise, authorization or asset shall be automatically and simultaneously granted hereunder and shall be included as Collateral hereunder, and (z) all rights to payment of money due or to become due pursuant to, and all proceeds (and rights to the proceeds) from the sale of, any Excluded Property shall be and at all times remain subject to the security interests created by this Agreement (unless such proceeds would independently constitute Excluded Property).

"**Excluded Taxes**" means any of the following Taxes imposed on or with respect to Agent, any Lender or any other recipient of any payment to be made by or on behalf of any obligation of the Credit Parties hereunder or the Obligations or required to be withheld or deducted from a payment to Agent, such Lender or such recipient (including any interest and penalties thereon): (a) Taxes to the extent imposed on or measured by Agent's, any Lender's or such recipient's net income (however denominated), branch profits Taxes, and franchise Taxes and similar Taxes, in each case, (i) imposed by the jurisdiction (or any political subdivision thereof) under which Agent, such Lender or such recipient is organized, has its principal office or conducts business with respect to entering into any of the Financing Documents or taking any action thereunder or (ii) that are Other Connection Taxes; (b) in the case of a Lender, United States withholding Taxes imposed on amounts payable to or for the account of such Lender with respect to an applicable interest in the Loans pursuant to a Law in effect on the date on which (i) such Lender becomes a party to this Agreement other than as a result of an assignment requested by a Credit Party under Section 2.8(i) or Section 11.17(c) or (ii) such Lender changes its lending office, except in each case to the extent that, pursuant to Section 2.8, amounts with respect to such Taxes were payable either to such Lender's assignor immediately before such Lender acquired the applicable interest in a Loan or Term Loan Commitment or to such Lender immediately before it changed its lending office; (c) Taxes attributable to Agent's, such Lender's or such recipient's failure to comply with Section 2.8(c); and (d) any U.S. federal withholding taxes imposed under FATCA.

"**FATCA**" means Sections 1471 through 1474 of the Code as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with), any current or future U.S. Treasury regulations or official interpretations thereof and any agreement entered into pursuant to the implementation of Section 1471(b)(1) of the Code, and any intergovernmental agreement, treaty or convention between the United States Internal Revenue Service, the U.S. Government and any governmental or taxation authority under any other jurisdiction implementing such sections of the Code.

"**FDA**" means the Food and Drug Administration of the United States of America, any comparable state or local Governmental Authority, any comparable Governmental Authority in any non-United States jurisdiction, and any successor agency of any of the foregoing.

"**FDCA**" means the Federal Food, Drug and Cosmetic Act, as amended, 21 U.S.C. Section 301 et seq., and all regulations promulgated thereunder.

"**Federal Funds Rate**" means, for any day, the rate of interest per annum (rounded upwards, if necessary, to the nearest whole multiple of 1/100 of 1%) equal to the weighted average of the rates on overnight Federal funds transactions with members of the Federal Reserve System, as published by the Federal Reserve Bank of New York on the Business Day next succeeding such day, *provided*, *however*, that (a) if such day is not a Business Day, the Federal Funds Rate for such day shall be such rate on such transactions on the next preceding Business Day, and (b) if no such rate is so published on such next preceding Business Day, the Federal Funds Rate for such day shall be the average rate quoted to Agent on such day on such transactions as determined by Agent in a commercially reasonable manner.

"**Fee Letter**" means each agreement between Agent and Borrower relating to fees payable to Agent and/or Lenders in connection with this Agreement.

"**Financing Documents**" means this Agreement, any Notes, the Security Documents, each Fee Letter, each subordination or intercreditor agreement pursuant to which any Debt and/or any Liens securing such Debt is subordinated to all or any portion of the Obligations and all other documents, instruments and agreements related to the Obligations and heretofore executed, executed concurrently herewith or executed at any time and from time to time hereafter, as any or all of the same may be amended, supplemented, restated or otherwise modified from time to time.

"**Foreign Lender**" has the meaning set forth in Section 2.8(c)(i).

"**GAAP**" means generally accepted accounting principles set forth from time to time in the opinions and pronouncements of the Accounting Principles Board and the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board (or agencies with similar functions of comparable stature and authority within the United States accounting profession), which are applicable to the circumstances as of the date of determination.

"**General Intangible**" means any "general intangible" as defined in Article 9 of the UCC, and any personal property, including things in action, other than accounts, chattel paper, commercial tort claims, deposit accounts, documents, goods, instruments, investment property, letter-of-credit rights, letters of credit, money, and oil, gas or other minerals before extraction, but including payment intangibles and software.

"**Governmental Authority**" means any nation or government, any state, local or other political subdivision thereof, and any agency, department or Person exercising executive, legislative, judicial, regulatory or administrative functions of or pertaining to government and any corporation or other Person owned or controlled (through stock or capital ownership or otherwise) by any of the foregoing, whether domestic or foreign.

"**Guarantee**" by any Person means any obligation, contingent or otherwise, of such Person directly or indirectly guaranteeing any Debt or other obligation of any other Person and, without limiting the generality of the foregoing, any obligation, direct or indirect, contingent or otherwise, of such Person (a) to purchase or pay (or advance or supply funds for the purchase or payment of) such Debt or other obligation (whether arising by virtue of partnership arrangements, by agreement to keep-well, to purchase assets, goods, securities or services, to take-or-pay, or to maintain financial statement conditions or otherwise), or (b) entered into for the purpose of assuring in any other manner the obligee of such Debt or other obligation of the payment thereof or to protect such obligee against loss in respect thereof (in whole or in part), *provided*, *however*, that the term Guarantee shall not include endorsements for collection or deposit in the Ordinary Course of Business. The term "**Guarantee**" used as a verb has a corresponding meaning.

"**Guarantor**" means any Credit Party that has executed or delivered, or shall in the future execute or deliver, any Guarantee of any portion of the Obligations.

"**Hazardous Materials**" means petroleum and petroleum products and compounds containing them, including gasoline, diesel fuel and oil; explosives, flammable materials; radioactive materials; polychlorinated biphenyls and compounds containing them; lead and lead-based paint; asbestos or asbestos-containing materials; underground or above-ground storage tanks, whether empty or containing any substance; any substance the presence of which is prohibited by any Environmental Laws; toxic mold, any substance that requires special handling; and any other material or substance now or in the future defined as a "hazardous substance," "hazardous material," "hazardous waste," "toxic substance," "toxic pollutant," "contaminant," "pollutant" or other words of similar import within the meaning of any Environmental Law, including: (a) any "hazardous substance" defined as such in (or for purposes of) CERCLA, or any so-called "superfund" or "superlien" Law, including the judicial interpretation thereof; (b) any "pollutant or contaminant" as defined in 42 U.S.C.A. § 9601(33); (c) any material now defined as "hazardous waste" pursuant to 40 C.F.R. Part 260; (d) any petroleum or petroleum by-products, including crude oil or any fraction thereof; (e) natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel; (f) any "hazardous chemical" as defined pursuant to 29 C.F.R. Part 1910; (g) any toxic or harmful substances, wastes, materials, pollutants or contaminants (including, without limitation, asbestos, polychlorinated biphenyls, flammable explosives, radioactive materials, infectious substances, materials containing lead-based paint or raw materials which include hazardous constituents); and (h) any other toxic substance or contaminant that is subject to any Environmental Laws or other past or present requirement of any Governmental Authority.

"**Hazardous Materials Contamination**" means contamination (whether now existing or hereafter occurring) of the improvements, buildings, facilities, personalty, soil, groundwater, air or other elements on or of the relevant property by Hazardous Materials, or any derivatives thereof, or on or of any other property as a result of Hazardous Materials, or any derivatives thereof, generated on, emanating from or disposed of in connection with the relevant property.

"**Healthcare Laws**" means all applicable Laws relating to the procurement, development, provision, clinical and non-clinical evaluation or investigation, product approval or clearance, manufacture, production, analysis, distribution, dispensing, importation, exportation, use, handling, quality, reimbursement, sale, labeling, advertising, promotion, or postmarket requirements of any drug, medical device, clinical laboratory service, food, dietary supplement, or other product (including, without limitation, any ingredient or component of, or accessory to, the foregoing products) subject to regulation under the FDCA, Clinical Laboratory Improvement Amendments of 1988 (42 U.S.C. §263a et seq) and its implementing regulations (42 C.F.R. Part 493), as enforced by CMS, and similar state or foreign laws, controlled substances laws, pharmacy laws, consumer product safety laws, Medicare, Medicaid, TRICARE, HIPAA, the Patient Protection and Affordable Care Act (P.L. 111-1468), all federal and state fraud and abuse laws, including, without limitation, the federal Anti-Kickback Statute (42 U.S.C. §1320a-7b(6)), the Stark Law (42 U.S.C. §1395nn), the civil False Claims Act (31 U.S.C. §3729 et seq.) and all laws, policies, procedures, requirements and regulations pursuant to which Permits are issued, in each case, as the same may be amended from time to time.

"**HIPAA**" means the Health Insurance Portability and Accountability Act of 1996, as the same may be amended, modified or supplemented from time to time, and any successor statute thereto, and any and all rules or regulations promulgated from time to time thereunder.

"**Indemnified Taxes**" means (a) Taxes, other than Excluded Taxes, imposed on or with respect to any payment made by or on account of any obligation of Borrowers or any other Credit Party under any Financing Documents and (b) to the extent not otherwise described in (a), Other Taxes.

"**Instrument**" means "instrument", as defined in Article 9 of the UCC.

"**Intellectual Property**" means all copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work, whether published or unpublished, any patents, patent applications and like protections, including improvements, divisions, continuations, renewals, reissues, extensions, and continuations-in-part of the same, trademarks, trade names, service marks, mask works, rights of use of any name, domain names, or any other similar rights, any applications therefor, whether registered or not, know-how, operating manuals, trade secret rights, clinical and non-clinical data, rights to unpatented inventions, and any claims for damage by way of any past, present, or future infringement of any of the foregoing.

"**Interest Period**" means any period commencing on the first day of a calendar month and ending on the last day of such calendar month.

"**Inventory**" means "inventory" as defined in Article 9 of the UCC.

"**Investment**" means, with respect to any Person, directly or indirectly, (a) to purchase or acquire any stock or stock equivalents, or any obligations or other securities of, or any interest in, any Person, including the establishment or creation of a Subsidiary, (b) to make or otherwise consummate any Acquisition, or (c) make or purchase any advance, loan, extension of credit or capital contribution to or in, or any other investment in, any Person. The amount of any Investment shall be the original cost of such Investment plus the cost of all additions thereto, without any adjustments for increases or decreases in value, or write-ups, write-downs or write-offs with respect thereto.

"**IRS**" has the meaning set forth in Section 2.8(c)(i).

"**Joinder Requirements**" has the meaning set forth in Section 4.11(c).

"**Laws**" means any and all federal, state, provincial, territorial, local and foreign statutes, laws, judicial decisions, regulations, ordinances, rules, judgments, orders, decrees, codes, injunctions, permits, governmental agreements and governmental restrictions, whether now or hereafter in effect, which are applicable to any Credit Party in any particular circumstance. "**Laws**" includes, without limitation, Healthcare Laws and Environmental Laws.

"**L/C Cash Collateral Accounts**" means, collectively, each segregated Deposit Account from time to time identified to Agent in writing established by Borrower for the sole purpose of securing Borrower's obligations under clause (h) of the definition Permitted Contingent Obligations and containing only such cash or Cash Equivalents that have been required to be pledged to secure such obligations of Borrower; *provided*, that the aggregate amount of cash or Cash Equivalents deposited in all such L/C Cash Collateral Account(s) does not, at any time, exceed $450,000 in the aggregate

"**Lender**" means each of (a) MCF, in its capacity as a lender hereunder, (b) each other Person party hereto in its capacity as a lender hereunder, (c) each other Person that becomes a party hereto as Lender pursuant to Section 11.17, and (d) the respective successors of all of the foregoing, and "**Lenders**" means all of the foregoing.

"**LIBOR Rate**" means, for each Loan, a per annum rate of interest equal to the greater of (a) one and one half percent (1.50%) and (b) the rate determined by Agent (rounded upwards, if necessary, to the next 1/100th%) by *dividing* (i) the Base LIBOR Rate for the Interest Period, *by* (ii) the sum of one *minus* the daily average during such Interest Period of the aggregate maximum reserve requirement (expressed as a decimal) then imposed under Regulation D of the Board of Governors of the Federal Reserve System (or any successor thereto) for "Eurocurrency Liabilities" (as defined therein).

"**Lien**" means, with respect to any asset, any mortgage, lien, pledge, charge, security interest or encumbrance of any kind, in respect of such asset. For the purposes of this Agreement and the other Financing Documents, any Borrower or any Subsidiary shall be deemed to own subject to a Lien any asset which it has acquired or holds subject to the interest of a vendor or lessor under any conditional sale agreement, Capital Lease or other title retention agreement relating to such asset.

"**Litigation**" means any action, suit or proceeding before any court, mediator, arbitrator or Governmental Authority.

"**Loan Account**" has the meaning set forth in Section 2.6(b).

"**Loan(s)**" means the Term Loan and each and every advance under the Term Loan. All references herein to the "making" of a Loan or words of similar import mean, with respect to the Term Loan, the making of any advance in respect of a Term Loan.

"**Margin Stock**" means "margin stock" as such term is defined in Regulation T, U, or X of the Board of Governors of the Federal Reserve System.

"**Market Withdrawal**" means a Person's Removal or Correction of a distributed product which involves a minor violation that would not be subject to legal action by the FDA or which involves no violation, e.g., normal stock rotation practices, routine equipment adjustments and repairs, etc.

"**Material Adverse Effect**" means with respect to any event, act, condition or occurrence of whatever nature (including any adverse determination in any litigation, arbitration, or governmental investigation or proceeding), whether singly or in conjunction with any other event or events, act or acts, condition or conditions, occurrence or occurrences, whether or not related, a material adverse change in, or a material adverse effect upon, any of (a) the condition (financial or otherwise), operations, business or properties of the Credit Parties taken as a whole, (b) the rights and remedies of Agent or Lenders under any Financing Document, or the ability of any Credit Party to perform any of its obligations under any Financing Document to which it is a party, (c) the legality, validity or enforceability of any Financing Document, (d) the existence, perfection or priority of any security interest granted to Agent or the Lenders in any Financing Document, except solely as a result of any action or inaction of Agent or any Lender (*provided* that such action or inaction is not caused by a Credit Party's failure to comply with the terms of the Financing Documents), (e) the value of any material Collateral, or (f) a material impairment of the prospect of repayment of any portion of the Obligations.

"**Material Contracts**" means (a) the Financing Documents, (b) the agreements listed on Schedule 3.17, and (c) any other agreement or contract to which such Credit Party or its Subsidiaries is a party the termination of which could reasonably be expected to result in a Material Adverse Effect.

"**Material Intangible Assets**" means all of (a) Intellectual Property owned by the Credit Parties or their Subsidiaries and (b) license or sublicense agreements or other agreements with respect to rights in Intellectual Property not owned by a Credit Party or a Subsidiary thereof, in each case, that are material to the condition (financial or other), business or operations of Credit Parties and their Subsidiaries (taken as a whole) as determined by Agent in its reasonable discretion.

"**Maturity Date**" means October 27, 2025.

"**Maximum Lawful Rate**" has the meaning set forth in Section 2.7.

"**MCF**" means MidCap Financial Trust, a Delaware statutory trust, and its successors and assigns.

"**Minimum Net Revenue Threshold**" means, for each Defined Period, the minimum amount set forth on Schedule 6.1 for such Defined Period.

"**Monthly Cash Burn Amount**" means, with respect to Borrowers and their Subsidiaries (on a consolidated basis), an amount equal to (a) the Borrowers' and their Subsidiaries change in cash and cash equivalents, without giving effect to any increase resulting from the proceeds of financings, the sale or issuance of Equity Interests or any other extraordinary receipts, for either (i) the immediately preceding six (6) month period as determined as of the last day of the month immediately preceding the proposed consummation of the applicable Permitted Acquisition and based upon the financial statements delivered to Agent in accordance with this Agreement for such period, or (ii) the immediately succeeding six (6) month period based upon the Transaction Projections delivered with respect to such proposed Permitted Acquisition, using whichever calculation as between clause (i) and clause (ii) demonstrates a higher burn rate (or, in other words, more cash used), in both cases, *divided* by (b) six (6).

"**Multiemployer Plan**" means a multiemployer plan within the meaning of Section 4001(a)(3) of ERISA to which any Borrower or any other member of the Controlled Group (or any Person who in the last five years was a member of the Controlled Group) is making or accruing an obligation to make contributions or has within the preceding five plan years (as determined on the applicable date of determination) made contributions.

"**Net Revenue**" means, for any applicable Defined Period, the consolidated revenue of Borrowers and its Subsidiaries, as determined in accordance with GAAP, generated during such Defined Period through the commercial sale of Products or software or the provision of maintenance services or laboratory services by Borrowers or their Subsidiaries, in all case, in the Ordinary Course of Business.

"**Notes**" has the meaning set forth in Section 2.3.

"**Notice of Borrowing**" means a notice of a Responsible Officer of Borrower Representative, appropriately completed and substantially in the form of Exhibit D hereto.

"**Obligations**" means all obligations, liabilities and indebtedness (monetary (including, without limitation, the payment of interest and other amounts arising after the commencement of any case with respect to any Credit Party under the Bankruptcy Code or any similar statute which would accrue and become due but for the commencement of such case, whether or not such amounts are allowed or allowable in whole or in part in such case) or otherwise) of each Credit Party under this Agreement or any other Financing Document, in each case howsoever created, arising or evidenced, whether direct or indirect, absolute or contingent, now or hereafter existing, or due or to become due.

"**OFAC**" means the U.S. Department of Treasury Office of Foreign Assets Control.

"**OFAC Lists**" means, collectively, the Specially Designated Nationals and Blocked Persons List maintained by OFAC pursuant to Executive Order No. 13224, 66 Fed. Reg. 49079 (Sept. 25, 2001) and/or any other list of terrorists or other restricted Persons maintained pursuant to any of the rules and regulations of OFAC or pursuant to any other applicable Executive Orders.

"**Ordinary Course of Business**" means, in respect of any transaction involving any Credit Party or any Subsidiary, the ordinary course of business of such Credit Party or Subsidiary, as conducted by such Credit Party or Subsidiary in accordance with past practices.

"**Organizational Documents**" means, with respect to any Person other than a natural person, the documents by which such Person was organized (such as a certificate of incorporation, articles of incorporation, certificate of limited partnership or articles of organization, and including, without limitation, any certificates of designation for preferred stock or other forms of preferred equity) and which relate to the internal governance of such Person (such as by-laws, a partnership agreement or an operating agreement, joint venture agreement, limited liability company agreement or members agreement), including any and all shareholder agreements or voting agreements relating to the capital stock or other Equity Interests of such Person.

"**Other Connection Taxes**" means taxes imposed as a result of a present or former connection between Agent or any Lender and the jurisdiction imposing such tax (other than connections arising from Agent or such Lender having executed, delivered, become a party to, performed its obligations under, received payments under, engaged in any other transaction pursuant to or enforced any Financing Document, or sold or assigned an interest in any Loans or any Financing Document).

"**Other Taxes**" means all present or future stamp, court or documentary, intangible, recording, filing or similar taxes that arise from any payment made under, from the execution, delivery, performance, enforcement or registration of, from the receipt or perfection of a security interest under, or otherwise with respect to, any Financing Document, except any such taxes that are Other Connection Taxes imposed with respect to an assignment (other than an assignment made pursuant to Section 2.8(i)).

"**Participant Register**" has the meaning set forth in Section 11.17(a)(iii).

"**Payment Account**" means the account specified on the signature pages hereof into which all payments by or on behalf of each Borrower to Agent under the Financing Documents shall be made, or such other account as Agent shall from time to time specify by notice to Borrower Representative.

"**PBGC**" means the Pension Benefit Guaranty Corporation and any Person succeeding to any or all of its functions under ERISA.

"**Pension Plan**" means any ERISA Plan that is subject to Section 412 of the Code or Title IV of ERISA.

"**Perfection Certificate**" means the Perfection Certificate delivered to Agent as of the Closing Date, together with any amendments thereto required under this Agreement.

"**Permit**" means all licenses, certificates, accreditations, product clearances or approvals, provider numbers or provider authorizations, supplier numbers, marketing authorizations, drug or device authorizations and approvals, other authorizations, franchises, qualifications, accreditations, registrations, permits, consents and approvals of a Credit Party issued or required under Laws applicable to the business of Borrowers or any of their Subsidiaries or necessary in the manufacturing, importing, exporting, possession, ownership, warehousing, marketing, promoting, sale, labeling, furnishing, distribution or delivery of goods or services under Laws applicable to the business of Borrower or any of its Subsidiaries. Without limiting the generality of the foregoing, "**Permit**" includes any Regulatory Required Permit.

"Permitted Acquisition" means any Acquisition by a Borrower, in each case, to the extent that each of the following conditions shall have been satisfied:

(a) the Borrower Representative shall have delivered to Agent at least ten (10) Business Days (or such shorter period as may be agreed by Agent) prior to the closing of the proposed Acquisition: (i) a description of the proposed Acquisition; (ii) to the extent available in the case of an Acquisition for cash consideration in excess of $1,000,000, a due diligence package (including, to the extent available, a quality of earnings report); and (iii) copies of the respective agreements, documents or instruments pursuant to which such Acquisition is to be consummated (or substantially final drafts thereof), any schedules to such agreements, documents or instruments and all other material ancillary agreements, instruments and documents to be executed or delivered in connection therewith, and, to the extent required to be completed prior to the closing of such Acquisition under the related acquisition agreement and reasonably requested by Agent, all material regulatory and third party approvals and copies of any environmental assessments, if applicable;

(b) the Credit Parties (including any new Subsidiary to the extent required by Section 4.11) shall execute and deliver the agreements, instruments and other documents to the extent required by Section 4.11 hereof, including such agreements, instruments and other documents necessary to ensure that Agent receives a first priority perfected Lien in all entities and assets acquired in connection with the Acquisition to the extent required by this Agreement;

(c) at the time of such Acquisition and after giving effect thereto, no Event of Default has occurred and is continuing;

(d) the Acquisition would not result in a Change in Control and each Borrower remains a surviving legal entity after such Acquisition;

(e) with respect to any Acquisition involving an in-license to a Credit Party, all such in-licenses or agreements related thereto shall constitute "Collateral" and Agent to have the ability in the event of a liquidation of any Collateral to dispose of such Collateral in accordance with Agent's rights and remedies under this Agreement and the other Financing Documents;

(f) all transactions in connection with such Acquisition shall be consummated in all material respects in accordance with applicable Laws;

(g) the assets acquired in such Acquisition are for use in the same, similar, related or complementary lines of business as the Credit Parties are currently engaged or a similar, related or complementary line of business reasonably related, ancillary or supplemental thereto or incidental thereto or reasonably expansive thereof;

(h) if required, such Acquisition shall have been approved by the board of directors (or other similar body) and/or the stockholders or other equity holders of any Person being acquired in such Acquisition;

(i) no Debt or Liens are assumed or created (other than Permitted Liens and Permitted Debt) in connection with such Acquisition;

(j) Agent shall have received a certificate of a Responsible Officer of the Borrower Representative demonstrating, on a pro forma basis after giving effect to the consummation of such Acquisition, that Credit Parties are in compliance with the financial covenants set forth in Article 6 hereof;

(k) unless Agent shall otherwise consent in writing (in its sole discretion), (x) if the Acquisition is an equity purchase or merger, the target and its Subsidiaries must have as their jurisdiction of formation a state within the United States or the District of Columbia, and (y) if the Acquisition is an asset purchase, not less than 90% of the fair market value of all of the assets so acquired shall be located within (or in the case of Registered Intellectual Property, registered in) the United States;

(l) the consideration payable by the Credit Parties and their Subsidiaries in connection with such Acquisition shall consist solely of (x) noncash equity interests (other than Disqualified Stock) in Akoya, Inc. and/or (y) cash and Cash Equivalents not to exceed in the aggregate the cap set forth in clause (m) below;

(m) the sum of all cash amounts (including Cash Equivalents) paid or payable in connection with all Permitted Acquisitions (including all Debt, liabilities and Contingent Obligations (in each case to the extent otherwise permitted hereunder) incurred or assumed and the maximum amount of any royalties, earn-outs or comparable payment obligation in connection therewith, regardless of when due or payable and whether or not reflected on a consolidated balance sheet of Borrowers) (all such consideration, the "**Acquisition Consideration**") shall not exceed $5,000,000 in the aggregate in during the term of this Agreement; *provided* that such Acquisition Consideration cap shall not apply to any Acquisition (or series of related Acquisitions) to the extent that, prior to the consummation of each such Acquisition, Borrower has provided evidence reasonably satisfactory to Agent demonstrating that following the consummation of such Acquisition and after giving pro forma effect to the payment of all Acquisition Consideration in connection therewith (including all deferred Acquisition Consideration as if such amounts were payable upon the closing of such Acquisition), Borrowers will have Borrower Unrestricted Cash in an amount equal to or greater than the greater of (x) an amount equal to the product of (I) 1.25 *multiplied* by (II) the aggregate outstanding principal amount of the Obligations as of the date such Acquisition is consummated and (y) an amount equal to positive value of the product of (I) 12 *multiplied* by (y) the Monthly Cash Burn Amount.

(n) Agent has received, prior to the consummation of such Acquisition, updated financial projections, in form and substance reasonably satisfactory to Agent, for the immediately succeeding twelve (12) months following the proposed consummation of the Acquisition beginning with the month during which the Acquisition is to be consummated (the "**Transaction Projections**").

"**Permitted Asset Dispositions**" means the following Asset Dispositions, *provided*, *however*, that at the time of such Asset Disposition, no Default or Event of Default exists or would result from such Asset Disposition:

(a) dispositions of Inventory in the Ordinary Course of Business and not pursuant to any bulk sale;

(b) dispositions of furniture, fixtures and equipment in the Ordinary Course of Business that the applicable Credit Party or Subsidiary determines in good faith is no longer used or useful in the business of such Credit Party and its Subsidiaries;

(c) expiration, forfeiture, invalidation, cancellation, abandonment or lapse (including, without limitation, the narrowing of claims) of Intellectual Property (other than Material Intangible Assets) that is, in the reasonable good faith judgment of a Credit Party, no longer useful in the conduct of the business of the Credit Parties or any of their Subsidiaries;

(d) the granting of Permitted Licenses and the use of cash and Cash Equivalents to make Permitted Investments;

(e) (e) (i) Asset Dispositions by any Borrower to another Borrower, (ii) Asset Dispositions by any Guarantor or other Subsidiary to a Borrower or another Credit Party, and (iii) Asset Dispositions among Restricted Foreign Subsidiaries;

(f) sales, forgiveness or discounting, on a non-recourse basis and in the Ordinary Course of Business, of past due Accounts in connection with the settlement of delinquent Accounts or in connection with the bankruptcy or reorganization of suppliers or customers in accordance with the applicable terms of this Agreement;

(g) to the extent constituting an Asset Disposition, the granting of Permitted Liens;

(h) dispositions consisting of the use or payment of cash or Cash Equivalents in the Ordinary Course of Business and in a manner that is not prohibited by the terms of this Agreement or the other Financing Documents;

(i) dispositions of tangible personal property (and not, for the avoidance of doubt, any Intellectual Property or other intangible assets) so long as (i) the assets subject to such Asset Dispositions are sold for fair value, as determined by the Borrowers in good faith, (ii) at least 75% of the consideration therefor is cash or Cash Equivalents and (ii) the aggregate amount of such Asset Dispositions in any twelve (12) month period does not exceed $500,000;

(j) Asset Dispositions (i) by any Borrower to any other Borrower and (ii) by any Guarantor to any Borrower; and

(k) other dispositions approved by Agent from time to time in its sole discretion.

"**Permitted Contest**" means, with respect to any tax obligation or other obligation allegedly or potentially owing from any Credit Party or its Subsidiary to any governmental tax authority or other third party, a contest maintained in good faith by appropriate proceedings promptly instituted and diligently conducted and with respect to which such reserve or other appropriate provision, if any, as shall be required in conformity with GAAP shall have been made on the books and records and financial statements of the applicable Credit Party(ies); *provided*, *however*, that (a) compliance with the obligation that is the subject of such contest is effectively stayed during such challenge; (b) Credit Parties' and their Subsidiaries' title to, and its right to use, the Collateral is not adversely affected thereby and Agent's Lien and priority on the Collateral are not adversely affected, altered or impaired thereby; (c) the Collateral or any part thereof or any interest therein shall not be in any danger of being sold, forfeited or lost by reason of such contest by Credit Parties or their Subsidiaries; and (d) upon a final determination of such contest, Credit Parties and their Subsidiaries shall promptly comply with the requirements thereof.

"**Permitted Contingent Obligations**" means

(a) Contingent Obligations arising in respect of the Debt under the Financing Documents;

(b) Contingent Obligations resulting from endorsements for collection or deposit in the Ordinary Course of Business;

(c) Contingent Obligations outstanding on the date of this Agreement and set forth on Schedule 5.1 (but not including any refinancings, extensions, increases or amendments to the indebtedness underlying such Contingent Obligations other than extensions of the maturity thereof without any other change in terms);

(d) Contingent Obligations incurred in the Ordinary Course of Business with respect to surety and appeal bonds, performance bonds and other similar obligations not to exceed $500,000 in the aggregate at any time outstanding;

(e) Contingent Obligations arising under indemnity agreements with title insurers to cause such title insurers to issue to Agent mortgagee title insurance policies;

(f) Contingent Obligations arising with respect to customary indemnification obligations in favor of purchasers in connection with dispositions of personal property assets permitted under Section 5.6, or in connection with any other commercial agreement entered into by a Borrower or a Subsidiary thereof in the Ordinary Course of Business;

(g) so long as there exists no Event of Default both immediately before and immediately after giving effect to any such transaction, Contingent Obligations existing or arising under any Swap Contract, *provided*, *however*, that such obligations are (or were) entered into by Borrower or a Subsidiary thereof in the Ordinary Course of Business for the purpose of directly mitigating risks associated with liabilities, commitments, investments, assets, or property held or reasonably anticipated by such Person and not for purposes of speculation;

(h) Contingent Obligations existing or arising in connection with any letter of credit for the primary purpose of securing a lease of real property in the Ordinary Course of Business, *provided* that the aggregate amount of all such letter of credit reimbursement obligations does not at any time exceed $450,000 outstanding;

(i) unsecured Contingent Obligations arising with respect to customary indemnification obligations, adjustment of purchase price or similar obligations of any Credit Party, to the extent such Contingent Obligations arise in connection with a Permitted Acquisition and do not cause the Borrowers or their Subsidiaries to exceed the cap on Acquisition Consideration set forth in clause (m) of the definition of Permitted Acquisition; and

(j) other Contingent Obligations not to exceed $500,000 in the aggregate at any time outstanding.

"**Permitted Debt**" means:

(a) Borrowers' and its Subsidiaries' Debt to Agent and each Lender under this Agreement and the other Financing Documents;

(b) Debt incurred as a result of endorsing negotiable instruments received in the Ordinary Course of Business;

(c) purchase money Debt and Capital Leases not to exceed $1,000,000 in the aggregate at any time (whether in the form of a loan or a lease) used solely to acquire equipment and secured only by such equipment and any Permitted Refinancing thereof;

(d) Debt existing on the date of this Agreement and described on Schedule 5.1 (but not including any refinancings, extensions, increases or amendments to such Debt other than extensions of the maturity thereof without any other change in terms);

(e) so long as there exists no Event of Default both immediately before and immediately after giving effect to any such transaction, Debt existing or arising under any Swap Contract, *provided*, *however*, that such obligations are (or were) entered into by Borrower or an Affiliate in the Ordinary Course of Business for the purpose of directly mitigating risks associated with liabilities, commitments, investments, assets, or property held or reasonably anticipated by such Person and not for purposes of speculation;

(f) Debt not to exceed $250,000 in the aggregate at any time outstanding owed to any Person providing property, casualty, liability, or other insurance to the Credit Parties, including to finance insurance premiums , so long as the amount of such Debt is not in excess of the amount of the unpaid cost of, and shall be incurred only to defer the cost of, such insurance for the policy year in which such Debt is incurred and such Debt is outstanding only during such policy year;

(g) Debt consisting of unsecured intercompany loans and advances incurred by (1) any Borrower owing to any other Borrower, (2) any Borrower or any Guarantor owing to any Guarantor, (3) any Restricted Foreign Subsidiary owing to any other Restricted Foreign Subsidiary, or (4) any Restricted Foreign Subsidiary owing to any Borrower or any Guarantor so long as such Debt constitutes a Permitted Investment of the applicable Credit Party pursuant to clause (j) of the definition of Permitted Investments; *provided* that any such Indebtedness owed by a Credit Party shall, at the request of Agent, be subordinated to the payment in full of the Obligations pursuant to documentation in form and substance reasonably satisfactory to Agent.

(h) Debt secured solely by cash collateral held in a Credit Card Cash Collateral Account, in an aggregate amount not to exceed $500,000 at any time outstanding, in respect of credit cards, credit card processing services, debit cards, stored value cards, purchase cards (including so-called “procurement cards” or “P-cards”) or other similar cash management or merchant services, in each case, incurred in the Ordinary Course of Business;

(i) Unsecured loans incurred by Borrower from Pacific Western Bank prior to the Closing Date in reliance on the Small Business Administration’s Paycheck Protection Program under the Coronavirus Aid, Relief, and Economic Stability Act (P.L. 116-136 (the “Paycheck Protection Program”) in an aggregate principal amount of $2,478,000 (the “SBA Loan”); *provided* that not less than 75% of the SBA Loan shall be forgiven in accordance with the terms of the Paycheck Protection Program and Borrowers shall not be required to make any payments in respect of the portion of the SBA Loan that is forgiven;

(j) trade accounts payable arising in the Ordinary Course of Business;

(k) to the extent also constituting Permitted Debt (without duplication), Permitted Contingent Obligations;

(l) unsecured earn-out obligations and other similar contingent purchase price obligations constituting Acquisition Consideration and incurred in connection with a Permitted Acquisition (and not including any seller notes or other non-contingent Debt unless otherwise constituting Permitted Debt), in an amount not to exceed the cap set forth in clause (m) of the definition of Permitted Acquisitions after taking into account all other Acquisition Consideration paid or payable by Borrowers during the term of this Agreement; *provided* that no payment shall be made in respect of such obligations if an Event of Default has occurred and is continuing or would result from such payment;

(m) Subordinated Debt;

(n) unsecured obligations in respect of litigation settlement agreements or similar arrangements in an aggregate amount not exceeding $500,000 outstanding at any time; and

(o) other Debt not to exceed $100,000 in the aggregate at any time at any time outstanding.

"**Permitted Distributions**" means the following Distributions: (a) Distributions by any Subsidiary of a Credit Party to its direct parent; (b) dividends payable solely in capital stock (other than Disqualified Equity Interests); (c) repurchases of stock of current or former employees, directors or consultants pursuant to stock purchase agreements so long as an Event of Default does not exist at the time of such repurchase and would not exist after giving effect to such repurchase, *provided*, *however*, that such repurchase does not exceed Two Hundred Fifty Thousand Dollars ($250,000) in the aggregate per fiscal year, (d) distributions of Equity Interests (other than Disqualified Equity Interests) upon the conversion or exchange of Equity Interest (including options and warrants) or Subordinated Debt (and payments in respect of fractional shares), (e) payments in lieu of fractional shares of equity securities arising out of stock dividends, splits, combinations or conversions in an aggregate amount not to exceed One Hundred Thousand Dollars ($100,000) during the term of this Agreement; (f) the issuance of its Equity Interests (other than Disqualified Stock) upon the exercise of warrants or options to purchase Equity Interests of Akoya, Inc.; *provided* that no cash payments are made in connection therewith except for de minimis cash payable in lieu of fractional shares; (g) the distribution of rights pursuant to a stockholder rights plan or redemption of such rights for no or nominal consideration (including, for the avoidance of doubt, cash consideration); *provided* that such redemption is in accordance with the terms of such plan; (h) Distributions in connection with the retention of equity interests in payment of withholding taxes in connection with equity-based compensation plans in an aggregate amount not to exceed $500,000 in any twelve (12) month period; and (i) payments or distributions to dissenting stockholders pursuant to applicable Law in connection with any Permitted Acquisition, *provided* that such amounts when taken together with the aggregate Acquisition Consideration paid or payable for all Permitted Acquisitions shall not exceed the amounts permitted by clause (m) of the definition of Permitted Acquisition.

"**Permitted Investments**" means:

(a) Investments shown on Schedule 5.7 and existing on the Closing Date;

(b) to the extent constituting an Investment, the holding by a Person of cash and Cash Equivalents owned by such Person;

(c) Investments consisting of the endorsement of negotiable instruments for deposit or collection or similar transactions in the Ordinary Course of Business;

(d) Investments consisting of (i) travel advances and employee relocation loans and other employee loans and advances in the Ordinary Course of Business, and (ii) loans to employees, officers or directors relating to the purchase of equity securities of Borrowers or their Subsidiaries pursuant to employee stock purchase plans or agreements approved by Borrowers' Board of Directors (or other governing body), but the aggregate of all such loans and advances outstanding pursuant to this clause (d) may not exceed $250,000 at any time;

(e) Investments (including debt obligations) received in connection with the bankruptcy or reorganization of customers or suppliers and in settlement of delinquent obligations of, and other disputes with, customers or suppliers arising in the Ordinary Course of Business;

(f) Investments consisting of notes receivable of, or prepaid royalties and other credit extensions, to customers and suppliers who are not Affiliates, in the Ordinary Course of Business, *provided*, *however*, that this subpart (f) shall not apply to Investments of any Credit Party in any Subsidiary;

(g) Investments consisting of Deposit Accounts or Securities Accounts;

(h) Investments by any Borrower in (1) any other Borrower, or (2) any other Credit Party organized under the laws of the United States or any State thereof that has provided a Guarantee of the Obligations of the Borrowers which Guarantee is secured by a Lien granted by such Subsidiary to Agent in all or substantially all of its property of the type described in Schedule 9.1 hereto and otherwise made in compliance with Section 4.11(c);

(i) the granting of Permitted Licenses;

(j) Investments of cash and Cash Equivalents in Restricted Foreign Subsidiaries the proceeds of which will be used by such Restricted Foreign Subsidiaries solely for the payment of compensation and benefits of employees of Borrower and Subsidiaries and for administrative expenses; *provided* that the aggregate amount of Investments made pursuant to this clause (j) does not exceed $4,500,000 (or the equivalent thereof in any foreign currency) during any fiscal year;

(k) Investments constituting Permitted Acquisitions;

(l) (i) Non-cash Investments by Borrowers and their Subsidiaries in joint ventures or strategic alliances in the Ordinary Course of Business consisting of the non-exclusive licensing of technology, the development of technology or the providing of technical support; *provided* that no Asset Dispositions are made by Borrowers or their Subsidiaries in connection with such Investments other than Permitted Asset Dispositions and (ii) Investments of cash and Cash Equivalents in joint ventures and strategic alliance in an aggregate amount not to exceed $500,000 in any fiscal year; and

(m) so long as no Event of Default exists at the time of such Investment or after giving effect to such Investment, other Investments of cash and Cash Equivalents in an amount not exceeding Three Hundred Fifty Thousand Dollars ($350,000) in the aggregate at any time outstanding.

"**Permitted License**" means:

(a) any non-exclusive license or sublicense of rights to Intellectual Property (other than any source code licenses or sublicenses thereto thereto) of Borrower or its Subsidiaries so long as all such licenses (i) are granted in the Ordinary Course of Business, (ii) do not result in a legal transfer of title to the licensed property, and (iii) have been granted in exchange for fair consideration;

(b) any exclusive license or sublicense of rights to Intellectual Property (other than any source code licenses or sublicenses thereto thereto) of Borrower or its Subsidiaries so long as such licenses or sublicenses (i) are granted to third parties in the Ordinary Course of Business, (ii) do not result in a legal transfer of title to the licensed property, (iii) have been granted in exchange for fair consideration, (iii) are exclusive solely as to discrete geographical areas outside of the United States (and are not exclusive in any other respect), (iv) Borrowers or such Subsidiary has given Agent at least ten (10) days' written notice prior to entering in such license, and (v) no Event of Default has occurred and is continuing at the time such license or sublicense is granted or would arise from the granting of such license or sublicense;

(c) any exclusive license or sublicense of rights to Intellectual Property of Borrower or its Subsidiaries so long as such Permitted Licenses have been approved in advance in writing by Agent, in its sole discretion; and

(d) non-exclusive intercompany licenses and sublicenses among Credit Parties and their respective Subsidiaries in connection with transfer pricing arrangements.

"**Permitted Liens**" means:

(a) deposits or pledges of cash arising in the Ordinary Course of Business to secure obligations under workmen's compensation, social security or similar laws, or under unemployment insurance (but excluding Liens arising under ERISA or, with respect to any Pension Plan or Multiemployer Plan, the Code) pertaining to a Borrower's or its Subsidiary's employees, if any;

(b) deposits or pledges of cash and Cash Equivalents in the Ordinary Course of Business to secure leases and other obligations of like nature arising in the Ordinary Course of Business;

(c) carrier's, warehousemen's, mechanic's, workmen's, landlord's, materialmen's or other like Liens on Collateral, other than any Material Intangible Assets, arising in the Ordinary Course of Business with respect to obligations which are not due, or which are being contested pursuant to a Permitted Contest;

(d) Liens for taxes or other governmental charges not at the time delinquent or thereafter payable without penalty or the subject of a Permitted Contest;

(e) attachments, stay or appeal bonds, judgments and other similar Liens on Collateral for sums not exceeding $500,000 in the aggregate arising in connection with court proceedings; *provided*, *however*, that the execution or other enforcement of such Liens is effectively stayed and the claims secured thereby are the subject of a Permitted Contest;

(f) Liens with respect to real estate, easements, rights of way, restrictions, minor defects or irregularities of title, none of which, individually or in the aggregate, materially interfere with the benefits of the security intended to be provided by the Security Documents, materially affect the value or marketability of the Collateral, impair the use or operation of the Collateral for the use currently being made thereof or impair Borrowers' ability to pay the Obligations in a timely manner or impair the use of the Collateral or the ordinary conduct of the business of any Borrower or any Subsidiary and which, in the case of any real estate that is part of the Collateral, are set forth as exceptions to or subordinate matters in the title insurance policy accepted by Agent insuring the lien of the Security Documents;

(g) Liens and encumbrances in favor of Agent under the Financing Documents;

(h) Liens existing on the date hereof and set forth on Schedule 5.2 and Liens incurred in a Permitted Refinancing of the obligations or liabilities secured by such Liens;

(i) any Lien on any equipment securing Debt permitted under subpart (c) of the definition of Permitted Debt, *provided*, *however*, that such Lien attaches concurrently with or within one hundred twenty (120) days after the acquisition thereof and Liens incurred in a Permitted Refinancing of such Debt secured by such Liens;

(j) Liens that are rights of set-off, bankers' liens or similar non-consensual Liens relating to deposit or securities accounts in favor of banks, other depositary institutions and securities intermediaries solely to secure payment of fees and similar costs and expenses and arising in the Ordinary Course of Business;

(k) purported Liens evidenced by the filing of precautionary UCC financing statements relating solely to operating leases or consignments of personal property entered into the Ordinary Course of Business;

(l) Liens granted in the Ordinary Course of Business on the unearned portion of insurance premiums securing the financing of insurance premiums to the extent the financing is permitted clause (f) of the definition of Permitted Debt;

(m) Liens in favor of customs and revenue authorities arising as a matter of Law to secure payment of customs duties in connection with the importation of goods in the Ordinary Course of Business;

(n) Leases or subleases of real property granted in the Ordinary Course of Business;

(o) Liens solely in respect of the Credit Card Cash Collateral Accounts and amounts deposited therein to the extent securing obligations permitted pursuant to clause (h) of the definition of Permitted Debt;

(p) Liens solely in respect of the L/C Cash Collateral Accounts and amounts deposited therein to the extent securing obligations permitted pursuant to clause (h) of the definition of Permitted Contingent Obligations;

(q) Liens, deposits and pledges encumbering cash, Cash Equivalents with a value not to exceed Five Hundred Thousand Dollars ($500,000) in the aggregate at any time, to secure the performance of bids, tenders, contracts (other than contracts for the payment of money), public or statutory obligations, surety, indemnity, performance or other similar bonds or other similar obligations arising in the Ordinary Course of Business; and

(r) to the extent constituting a Lien, the granting of a Permitted License.

"**Permitted Modifications**" means (a) such amendments or other modifications to a Borrower's or Subsidiary's Organizational Documents as are required under this Agreement or by applicable Law, and (b) such amendments or modifications to a Borrower's or Subsidiary's Organizational Documents (other than those involving a change in the name of a Borrower or Subsidiary or involving a reorganization of a Borrower or Subsidiary under the laws of a different jurisdiction) that would not adversely affect the rights and interests of Agent or Lenders in any material respect.

"**Permitted Refinancing**" means Debt constituting a refinancing, extension or renewal of Debt; *provided* that the refinanced, extended, or renewed Debt (a) has an aggregate outstanding principal amount not greater than the aggregate principal amount of the Debt being refinanced or extended (plus any reasonable and customary interest, fees, premiums and costs and expenses) (b) has a weighted average maturity (measured as of the date of such refinancing or extension) and maturity no shorter than that of the Debt being refinanced or extended, (c) is not entered into as part of a sale leaseback transaction, (d) is not secured by a Lien on any assets other than the collateral securing the Debt being refinanced or extended, (e) the obligors of which are the same as the obligors of the Debt being refinanced or extended and (f) is otherwise on terms no less favorable to Credit Parties and their Subsidiaries, taken as a whole, than those of the Debt being refinanced or extended.

"**Person**" means any natural person, corporation, limited liability company, professional association, limited partnership, general partnership, joint stock company, joint venture, association, company, trust, bank, trust company, land trust, business trust or other organization, whether or not a legal entity, and any Governmental Authority.

"**Prepayment Fee**" has the meaning set forth in Section 2.2

"**Products**" means, from time to time, any products currently manufactured, sold, developed, tested or marketed by any Borrower or any of its Subsidiaries, including without limitation, those products set forth on Schedule 4.17; *provided*, that, for the avoidance of doubt, any new Product not disclosed on Schedule 4.17 shall still constitute a "Product" as herein defined; *provided* that, except with respect to the definition of Net Revenue, the term "Product" shall not include the Keyence BZ-X 700/800 microscope product.

"**Pro Rata Share**" means (a) with respect to a Lender's obligation to make advances in respect of a Term Loan and such Lender's right to receive payments of principal and interest with respect to the Term Loans, the Term Loan Commitment Percentage of such Lender in respect of such Term Loan, and (b) for all other purposes (including, without limitation, the indemnification obligations arising under Section 11.6) with respect to any Lender, the percentage obtained by *dividing* (i) the Term Loan Commitment Amount of such Lender (or, in the event the Term Loan Commitment shall have been terminated, such Lender's then outstanding principal advances of such Lender under the Term Loan), *by* (ii) the sum of the Term Loan Commitment (or, in the event the Term Loan Commitment shall have been terminated, the then outstanding principal advances of such Lenders under the Term Loan) of all Lenders.

"**Recall**" means a Person's Removal or Correction of a marketed Product that the FDA considers to be in violation of the laws it administers and against which the FDA would initiate legal action, e.g., seizure.

"**Registered Intellectual Property**" means any patent, registered trademark or servicemark, registered copyright, registered mask work, or any pending application for any of the foregoing.

"**Regulatory Reporting Event**" has the meaning set forth in Section 4.1.

"**Regulatory Required Permit**" means any and all licenses, approvals and permits issued by the FDA, DEA, CMS or any other applicable Governmental Authority, necessary for the testing, manufacture, marketing or sale of any Product by any applicable Borrower(s) and its Subsidiaries as such activities are being conducted by such Borrower and its Subsidiaries with respect to such Product at such time and any drug listings and drug establishment registrations under 21 U.S.C. Section 510, registrations issued by DEA under 21 U.S.C. Section 823 (if applicable to any Product), and those issued by State governments for the conduct of Borrower's or any Subsidiary's business.

"**Removal**" means the physical removal of a product from its point of use to some other location for repair, modification, adjustment, relabeling, destruction, or inspection.

"**Required Lenders**" means at any time Lenders holding (a) fifty percent (50%) or more of the sum of the Term Loan Commitment (taken as a whole), or (b) if the applicable Term Loan Commitments have been terminated or expired, fifty percent (50%) or more of the then aggregate outstanding principal balance of the applicable tranche of Term Loans.

"**Responsible Officer**" means any of the President, Chief Executive Officer, Chief Financial Officer or any other officer of the applicable Borrower acceptable to Agent.

"**Restricted Foreign Subsidiary**" means (a) Akoya Biosciences UK Ltd. and (b) each other each direct and indirect Subsidiary of a Borrower not organized under the laws of United States or any state thereof to the extent that such Subsidiary is established primarily to create a sales office, technical support office or provide research and development services in its jurisdiction of incorporation (or region) and Agent expressly agrees, in writing, that such Subsidiary constitutes a Restricted Foreign Subsidiary.

"**SEC**" means the United States Securities and Exchange Commission.

"**Securities Account**" means a "securities account" (as defined in Article 9 of the UCC), an investment account, or other account in which investment property or securities are held or invested for credit to or for the benefit of any Borrower.

"**Securities Account Control Agreement**" means an agreement, in form and substance satisfactory to Agent, among Agent, any applicable Borrower and each securities intermediary in which such Borrower maintains a Securities Account pursuant to which Agent shall obtain "control" (as defined in Article 9 of the UCC) over such Securities Account.

"**Security Document**" means this Agreement and each other agreement, document or instrument executed concurrently herewith or at any time hereafter pursuant to which one or more Credit Parties or any other Person either (a) Guarantees payment or performance of all or any portion of the Obligations, and/or (b) provides, as security for all or any portion of the Obligations, a Lien on any of its assets in favor of Agent for its own benefit and the benefit of the Lenders, as any or all of the same may be amended, supplemented, restated or otherwise modified from time to time.

"**Solvent**" means, with respect to any Person, that such Person (a) owns and will own assets the fair saleable value of which are (i) greater than the total amount of its debts and liabilities (including subordinated and Contingent Obligations), and (ii) greater than the amount that will be required to pay the probable liabilities of its then existing debts as they become absolute and matured considering all financing alternatives and potential asset sales reasonably available to it; (b) has capital that is not unreasonably small in relation to its business as presently conducted or after giving effect to any contemplated transaction; and (c) does not intend to incur and does not believe that it will incur debts beyond its ability to pay such debts as they become due.

"**Stated Rate**" has the meaning set forth in Section 2.7.

"**Subordinated Debt**" means any Debt of Borrowers incurred pursuant to the terms of the Subordinated Debt Documents and with the prior written consent of Agent, all of which documents must be in form and substance acceptable to Agent in its sole discretion. As of the Closing Date, there is no Subordinated Debt.

"**Subordinated Debt Documents**" means any documents evidencing and/or securing Debt governed by a Subordination Agreement, all of which documents must be in form and substance acceptable to Agent in its sole discretion. As of the Closing Date, there are no Subordinated Debt Documents.

"**Subordination Agreement**" means each agreement between Agent and another creditor of the Credit Parties, as the same may be amended, supplemented, restated or otherwise modified from time to time in accordance with the terms thereof, pursuant to which the Debt owing from any Credit Party and/or the Liens securing such Debt granted by any Credit Party to such creditor are subordinated in any way to the Obligations and the Liens created under the Security Documents, the terms and provisions of such Subordination Agreements to have been agreed to by and be acceptable to Agent in the exercise of its sole discretion.

"**Subsidiary**" means, with respect to any Person, (a) any corporation (or any foreign equivalent thereof) of which an aggregate of more than fifty percent (50%) of the outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether, at the time, capital stock of any other class or classes of such corporation shall have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, owned legally or beneficially by such Person or one or more Subsidiaries of such Person, or with respect to which any such Person has the right to vote or designate the vote of more than fifty percent (50%) of such capital stock whether by proxy, agreement, operation of law or otherwise, and (b) any partnership or limited liability company (or any foreign equivalent thereof) in which such Person and/or one or more Subsidiaries of such Person shall have an interest (whether in the form of voting or participation in profits or capital contribution) of more than fifty percent (50%) or of which any such Person is a general partner or may exercise the powers of a general partner. Unless the context otherwise requires, each reference to a Subsidiary shall be a reference to a Subsidiary of a Borrower.

"**Swap Contract**" means any "swap agreement", as defined in Section 101 of the Bankruptcy Code, that is obtained by Borrower to provide protection against fluctuations in interest or currency exchange rates, but only if Agent provides its prior written consent to the entry into such "swap agreement".

"**Taxes**" means all present or future taxes, levies, imposts, duties, deductions, withholdings (including backup withholding), assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

"**Termination Date**" means the earliest to occur of (a) the Maturity Date, (b) any date on which the maturity of the Loans is accelerated pursuant to Section 10.2, or (c) the termination date stated in any notice of termination of this Agreement provided by Borrowers in accordance with Section 2.12.

"**Term Loan**" means, collectively, the Term Loan Tranche 1 and Term Loan Tranche 2.

"**Term Loan Commitment**" means the sum of each Lender's Term Loan Commitment Amount.

"**Term Loan Commitment Amount**" means, with respect to each Lender, the sum of such Lender's Term Loan Tranche 1 Commitment Amount and Term Loan Tranche 2 Commitment Amount.

"**Term Loan Commitment Percentage**" means, as to any Lender with respect to each of such Lender's Term Loan Commitments, (a) on the Closing Date, with respect to each tranche of the Term Loan, the applicable percentage set forth opposite such Lender's name on the Commitment Annex under the column "Term Loan Tranche 1 Commitment Percentage" and "Term Loan Tranche 2 Commitment Percentage" (if such Lender's name is not so set forth thereon, then, on the Closing Date, such percentage for such Lender shall be deemed to be zero), and (b) on any date following the Closing Date, as applicable to each tranche of Term Loan, the percentage equal to (i) the Term Loan Tranche 1 Commitment of such Lender on such date *divided by* the aggregate Term Loan Tranche 1 Commitments on such date, or (ii) the Term Loan Tranche 2 Commitment of such Lender of such date *divided* by the aggregate Term Loan Tranche 2 Commitments on such date.

"**Term Loan Tranche 1**" has the meaning set forth in Section 2.1(a)(i)(A).

"**Term Loan Tranche 1 Commitment Amount**" means, with respect to each Lender, the amount set forth opposite such Lender's name on Annex A hereto under the caption "Term Loan Tranche 1 Commitment Amount", as amended from time to time to reflect any permitted and effective assignments and as such amount may be reduced or terminated pursuant to this Agreement.

"**Term Loan Tranche 1 Commitments**" means the sum of each Lender's Term Loan Tranche 1 Commitment Amount.

"**Term Loan Tranche 2**" has the meaning set forth in Section 2.1(a)(i)(B).

"**Term Loan Tranche 2 Activation Date**" means March 31, 2021 unless the Term Loan Tranche 2 Commitment Termination Date occurs prior thereto.

"**Term Loan Tranche 2 Commitment Amount**" means, with respect to each Lender, the amount set forth opposite such Lender's name on Annex A hereto under the caption "Term Loan Tranche 2 Commitment Amount", as amended from time to time to reflect any permitted and effective assignments and as such amount may be reduced or terminated pursuant to this Agreement.

"**Term Loan Tranche 2 Commitment Termination Date**" means the earlier of (a) June 30, 2021 and (b) the date on which Agent provides notice to the Credit Parties, following the occurrence of an Event of Default (which has not been waived or cured as of the date such notice is given), that the Term Loan Tranche 2 Commitments have been terminated.

"**Term Loan Tranche 2 Commitments**" means the sum of each Lender's Term Loan Tranche 2 Commitment Amount.

"**THP**" means, collectively, Telegraph Hill Partners III, L.P. and Telegraph III Affiliates LLC.

"**UCC**" means the Uniform Commercial Code of the State of New York or of any other state the laws of which are required to be applied in connection with the perfection of security interests in any Collateral.

"**United States**" means the United States of America.

"**U.S. Tax Compliance Certificate**" has the meaning set forth in Section 2.8(c)(i).

"**Withholding Agent**" means any Borrower or Agent.

"**Write-Down and Conversion Powers**" means, with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule.

Section 1.2 Accounting Terms and Determinations. Unless otherwise specified herein, all accounting terms used herein shall be interpreted, all accounting determinations hereunder (including, without limitation, determinations made pursuant to the exhibits hereto) shall be made, and all financial statements required to be delivered hereunder shall be prepared on a consolidated basis in accordance with GAAP applied on a basis consistent with the most recent audited consolidated financial statements of each Borrower and its Consolidated Subsidiaries delivered to Agent and each of the Lenders on or prior to the Closing Date, except with respect to unaudited financial statements (i) for non-compliance with FAS 123R, and (ii) for the absence of footnotes and subject to year-end audit adjustments; *provided* that (x) all obligations of any Person that are or would have been treated as operating leases for purposes of GAAP prior to the issuance by the Financial Accounting Standards Board on February 25, 2016 of an Accounting Standards Update (the "ASU") shall continue to be accounted for as operating leases for purposes of all financial definitions, calculations and covenants for purposes of this Agreement (whether or not such operating lease obligations were in effect on such date), notwithstanding the fact that such obligations are required in accordance with the ASU (on a prospective or retroactive basis or otherwise) to be treated as capitalized lease obligations in accordance with GAAP. If at any time any change in GAAP would affect the computation of any financial ratio or financial requirement set forth in any Financing Document, and either Borrowers or the Required Lenders shall so request, Agent, the Lenders and Borrowers shall negotiate in good faith to amend such ratio or requirement to preserve the original intent thereof in light of such change in GAAP (subject to the approval of the Required Lenders); *provided*, *however*, that until so amended, (a) such ratio or requirement shall continue to be computed in accordance with GAAP prior to such change therein and (b) Borrowers shall provide to Agent and the Lenders financial statements and other documents required under this Agreement which include a reconciliation between calculations of such ratio or requirement made before and after giving effect to such change in GAAP. Notwithstanding any other provision contained herein, all terms of an accounting or financial nature used herein shall be construed, and all computations of amounts and ratios referred to herein shall be made, without giving effect to any election under Statement of Financial Accounting Standards 159 (or any other Financial Accounting Standard having a similar result or effect) to value any Debt or other liabilities of any Credit Party or any Subsidiary of any Credit Party at "fair value", as defined therein.

Section 1.3 Other Definitional and Interpretive Provisions. References in this Agreement to "Articles", "Sections", "Annexes", "Exhibits", or "Schedules" shall be to Articles, Sections, Annexes, Exhibits or Schedules of or to this Agreement unless otherwise specifically provided. Any term defined herein may be used in the singular or plural. "Include", "includes" and "including" shall be deemed to be followed by "without limitation". Except as otherwise specified or limited herein, references to any Person include the successors and assigns of such Person. References "from" or "through" any date mean, unless otherwise specified, "from and including" or "through and including", respectively. References to any statute or act shall include all related current regulations and all amendments and any successor statutes, acts and regulations. All amounts used for purposes of financial calculations required to be made herein shall be without duplication. References to any statute or act, without additional reference, shall be deemed to refer to federal statutes and acts of the United States. References to any agreement, instrument or document shall include all schedules, exhibits, annexes and other attachments thereto. References to capitalized terms that are not defined herein, but are defined in the UCC, shall have the meanings given them in the UCC. All references herein to times of day shall be references to daylight or standard time, as applicable. All references herein to a merger, transfer, consolidation, amalgamation, assignment, sale or transfer, or analogous term, will be construed to mean also a division of or by a limited liability company, as if it were a merger, transfer, consolidation, amalgamation, assignment, sale or transfer, or similar term, as applicable. Any series of limited liability company shall be considered a separate Person.

Section 1.4 Settlement and Funding Mechanics. Unless otherwise specified herein, the settlement of all payments and fundings hereunder between or among the parties hereto shall be made in lawful money of the United States and in immediately available funds.

Section 1.5 Time is of the Essence. Time is of the essence in Borrower's and each other Credit Party's performance under this Agreement and all other Financing Documents.

Section 1.6 Time of Day. Unless otherwise specified, all references herein to times of day shall be references to Eastern time (daylight savings or standard, as applicable).

ARTICLE 2 - LOANS

Section 2.1 Loans.

(a) Term Loans.

(i) Term Loan Amounts.

(A) On the terms and subject to the conditions set forth herein and in the other Financing Documents, each Lender with a Term Loan Tranche 1 Commitment Amount severally hereby agrees to make to Borrowers a Term Loan on the Closing Date in an original aggregate principal amount equal to the Term Loan Tranche 1 Commitments (the "**Term Loan Tranche 1**"). Each such Lender's obligation to fund the Term Loan Tranche 1 shall be limited to such Lender's Term Loan Tranche 1 Commitment Percentage, and no Lender shall have any obligation to fund any portion of any Term Loan required to be funded by any other Lender, but not so funded.

(B) On the terms and subject to the conditions set forth herein and in the other Financing Documents, each Lender with a Term Loan Tranche 2 Commitment Amount severally hereby agrees to make to Borrowers a Term Loan on a Business Day occurring on or after the Term Loan Tranche 2 Activation Date and on or prior to the Term Loan Tranche 2 Commitment Termination Date (the "**Term Loan Tranche 2 Funding Date**") in an original aggregate principal amount equal to the Term Loan Tranche 2 Commitments (the "**Term Loan Tranche 2**"). Each such Lender's obligation to fund the Term Loan Tranche 2 shall be limited to such Lender's Term Loan Tranche 2 Commitment Percentage, and no Lender shall have any obligation to fund any portion of any Term Loan required to be funded by any other Lender, but not so funded. Unless previously terminated, upon the Term Loan Tranche 2 Commitment Termination Date, the Term Loan Tranche 2 Commitments shall thereupon automatically be terminated and the Term Loan Tranche 2 Commitment Amount of each Lender as of such date shall be reduced by such Lender's Pro Rata Share of such total reduction in the Term Loan Commitments. Without limiting the foregoing, until the Term Loan Tranche 2 Activation Date has occurred, no Borrower shall be entitled to request and no Lender shall be required to advance any principal amount in respect of the Term Loan Tranche 2. Unless previously terminated, upon the Term Loan Tranche 2 Commitment Termination Date, the Term Loan Tranche 2 Commitment shall thereupon automatically be terminated and the Term Loan Tranche 2 Commitment Amount of each Lender as of such date shall be reduced by such Lender's Pro Rata Share of such total reduction in the Term Loan Commitments.

(C) No Borrower shall have any right to reborrow any portion of the Term Loan that is repaid or prepaid from time to time. Borrowers shall deliver to Agent a Notice of Borrowing with respect to each proposed Term Loan advance, such Notice of Borrowing to be delivered, (i) in the case of a Term Loan Tranche 1 borrowing, no later than 12:00 P.M. (Eastern time) on the Closing Date or (ii) in the case of a Term Loan Tranche 2 borrowing, no later than 1:00 P.M. (Eastern time) ten (10) Business Days (or such shorter period as may be agreed by Agent and the Lenders) prior to such proposed borrowing.

(ii) Scheduled Repayments; Mandatory Prepayments; Optional Prepayments.

(A) There shall become due and payable, and Borrowers shall repay each Term Loan through, scheduled principal payments as set forth on Schedule 2.1 attached hereto. Notwithstanding the payment schedule set forth above, the outstanding principal amount of each Term Loan shall become immediately due and payable in full on the Termination Date.

(B) There shall become due and payable and Borrowers shall prepay the Term Loan in the following amounts and at the following times:

(i) Unless Agent shall otherwise consent in writing, subject to Borrower's option to apply casualty proceeds in accordance with the last sentence of this Section 2.1(a)(ii), within five (5) Business Days of the date on which any Credit Party (or Agent as loss payee or assignee) receives any casualty proceeds in excess of $500,000 with respect to assets upon which Agent maintained a Lien, an amount equal to one hundred percent (100%) of such proceeds (net of out-of-pocket expenses and repayment of secured debt permitted under clause (c) of the definition of Permitted Debt and encumbering the property that suffered such casualty), or such lesser portion of such proceeds as Agent shall elect to apply to the Obligations;

(ii) an amount equal to any interest that is deemed to be in excess of the Maximum Lawful Rate (as defined below) and is required to be applied to the reduction of the principal balance of the Loans by any Lender as provided for in Section 2.7; and

(iii) without limiting Section 5.6(b), unless Agent shall otherwise consent in writing, within five (5) Business Days of receipt by any Credit Party of the proceeds of any Asset Disposition that is not made in the Ordinary Course of Business, an amount equal to one hundred percent (100%) of the net cash proceeds of such asset disposition (net of out of pocket expenses and repayment of secured debt permitted under clause (c) of the definition of Permitted Debt and encumbering such asset and any and all fees, costs, expenses and taxes incurred in connection with such Asset Disposition), or such lesser portion as Agent shall elect to apply to the Obligations.

Notwithstanding the foregoing and so long as no Event of Default or Default then exists: (1) any such casualty proceeds in excess of $500,000 may be used by Borrowers within one hundred eighty (180) days from the receipt of such proceeds to replace or repair any assets in respect of which such proceeds were paid so long as such proceeds are deposited into a Deposit Account that is subject to a Deposit Account Control Agreement promptly upon receipt by such Borrower; and (2) proceeds of personal property asset dispositions that are not made in the Ordinary Course of Business may be used by Borrowers within one hundred eighty (180) days from the receipt of such proceeds to purchase new or replacement assets of comparable value, *provided*, *however*, that such proceeds are deposited into a Deposit Account that is subject to a Deposit Account Control Agreement promptly upon receipt by such Borrower. All sums held by Agent pending reinvestment as described in subsections (1) and (2) above shall be deemed additional collateral for the Obligations and may be commingled with the general funds of Agent.

(C) Borrowers may from time to time, with at least five (5) Business Days prior irrevocable written notice (which notice may be conditioned on the closing of a refinancing or other applicable transaction) to Agent, prepay the Term Loans in whole but not in part (other than mandatory partial prepayments required under this Agreement); *provided*, that such prepayment shall be accompanied by all prepayment fees or other fees required hereunder and any fees required under the Fee Letter or any Financing Document in connection with such prepayments.

(iii) All Prepayments. Except as this Agreement may specifically provide otherwise, all prepayments of the Term Loan shall be applied by Agent to the Obligations in inverse order of maturity. The monthly payments required under Schedule 2.1 shall continue in the same amount (for so long as the Term Loan and/or (if applicable) any advance thereunder shall remain outstanding) notwithstanding any partial prepayment, whether mandatory or optional, of the Term Loan. Notwithstanding anything to the contrary contained in the foregoing, in the event that there have been multiple advances under the Term Loan each of which such advances has a separate amortization schedule of principal payments under Schedule 2.1 attached hereto, each prepayment of the Term Loan shall be applied by Agent to reduce and prepay the principal balance of the earliest-made advance then outstanding in the inverse order of maturity of the scheduled payments with respect to such advance until such earliest-made advance is paid in full (and to the extent the total amount of any such partial prepayment shall exceed the outstanding principal balance of such earliest-made advance, the remainder of such prepayment shall be applied successively to the remaining advances under the Term Loan in the direct order of the respective advance dates in the manner provided for in this sentence).

(iv) LIBOR Rate.

(A) Except as provided in subsection (C) below, the Term Loan shall accrue interest at the LIBOR Rate *plus* the Applicable Margin.

(B) The LIBOR Rate may be adjusted by Agent with respect to any Lender on a prospective basis to take into account any additional or increased costs to such Lender of maintaining or obtaining any eurodollar deposits or increased costs, in each case, due to changes in applicable Law occurring subsequent to the commencement of the then applicable Interest Period, including changes in tax laws (except changes of general applicability in corporate income tax laws) and changes in the reserve requirements imposed by the Board of Governors of the Federal Reserve System (or any successor), which additional or increased costs would increase the cost of funding loans bearing interest based upon the LIBOR Rate; *provided*, *however*, that notwithstanding anything in this Agreement to the contrary, (i) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith and (ii) all requests, rules, guidelines or directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, in each case pursuant to Basel III, shall in each case be deemed to be a "change in applicable Law", regardless of the date enacted, adopted or issued. In any such event, the affected Lender shall give Borrowers and Agent notice of such a determination and adjustment and Agent promptly shall transmit the notice to each other Lender and, upon its receipt of the notice from the affected Lender, Borrowers may, by notice to such affected Lender (I) require such Lender to furnish to Borrowers a statement setting forth the basis for adjusting such LIBOR Rate and the method for determining the amount of such adjustment, or (II) repay the Loans bearing interest based upon the LIBOR Rate with respect to which such adjustment is made.

(C) In the event that any change in market conditions or any law, regulation, treaty, or directive, or any change therein or in the interpretation of application thereof, shall at any time after the date hereof, in the reasonable opinion of any Lender, make it unlawful or impractical for such Lender to maintain Loans bearing interest based upon the LIBOR Rate or to continue such maintaining, or to determine or charge interest rates at the LIBOR Rate, such Lender shall give notice of such changed circumstances to Agent and Borrowers and Agent promptly shall transmit the notice to each other Lender, (I) in the case of the pro rata share of the Term Loan held by such Lender and then outstanding, the date specified in such Lender's notice shall be deemed to be the last day of the Interest Period of such portion of the Term Loan, and interest upon such portion thereafter shall accrue interest at the Base Rate *plus* the Applicable Margin, and (II) such portion of the Term Loan shall continue to accrue interest at the Base Rate *plus* the Applicable Margin until such Lender determines that it would no longer be unlawful or impractical to maintain such Term Loan at the LIBOR Rate.

(D) Anything to the contrary contained herein notwithstanding, neither Agent nor any Lender is required actually to acquire eurodollar deposits to fund or otherwise match fund any Obligation as to which interest accrues based on the LIBOR Rate.

(b) Reserved.

Section 2.2 Interest, Interest Calculations and Certain Fees.

(a) Interest. From and following the Closing Date, except as expressly set forth in this Agreement, Loans and the other Obligations shall bear interest at the sum of the LIBOR Rate *plus* the Applicable Margin. Interest on the Loans shall be paid monthly in arrears on the first (1st) day of each month and on the maturity of such Loans, whether by acceleration or otherwise. Interest on all other Obligations shall be payable upon demand.

(b) Fee Letter. In addition to the other fees set forth herein, the Borrowers agree to pay Agent the fees set forth in the Fee Letter.

(c) Origination Fee. Contemporaneous with Borrowers execution of this Agreement, Borrowers shall pay Agent, for the pro rata benefit of all Lenders committed to make Term Loans on the Closing Date, a fee in an amount equal to $187,500. All fees payable pursuant to this paragraph shall be deemed fully earned when due and payable and non-refundable as of the Closing Date.

(d) Prepayment Fee. If any advance under the Term Loan is prepaid at any time, in whole or in part, for any reason (whether by voluntary prepayment by Borrower, by mandatory prepayment by Borrower, by reason of the occurrence of an Event of Default or otherwise, or if the Term Loan shall become accelerated (including any automatic acceleration due to the occurrence of an Event of Default described in Section 10.1(f)) or otherwise) and due and payable in full, Borrowers shall pay to Agent, for the benefit of all Lenders committed to make Term Loan advances, as compensation for the costs of such Lenders making funds available to Borrowers under this Agreement, a prepayment fee (the "**Prepayment Fee**") calculated in accordance with this subsection. The Prepayment Fee shall be equal to an amount determined by *multiplying* the amount being prepaid (or required to be prepaid, if such amount is greater) *by* the following applicable percentage amount: (x) three percent (3.0%) for the first year following the Closing Date, (y) two percent (2.0%) for the second year following the Closing Date and (z) one percent (1.0%) thereafter. The Prepayment Fee shall not apply to or be assessed upon any prepayment made by Borrowers if such payments were required by Agent to be made pursuant to Section 2.1(a)(ii)(B) subpart (i) (relating to casualty proceeds), or subpart (ii) (relating to payments exceeding the Maximum Lawful Rate). All fees payable pursuant to this paragraph shall be deemed fully-earned and non-refundable as of the Closing Date.

(e) Audit Fees. Subject to the limitations set forth in Section 4.6, Borrowers shall pay to Agent, for its own account and not for the benefit of any other Lenders, all reasonable out-of-pocket fees and expenses in connection with audits and inspections of Borrowers' books and records, audits, valuations or appraisals of the Collateral, audits of Borrowers' compliance with applicable Laws and such other matters as Agent shall deem appropriate, which shall be due and payable on the first Business Day of the month following the date of issuance by Agent of a written request for payment thereof to Borrowers.

(f) Wire Fees. Borrowers shall pay to Agent, for its own account and not for the account of any other Lenders, on written demand, fees for incoming and outgoing wires made for the account of Borrowers, such fees to be based on Agent's then current wire fee schedule (available upon written request of the Borrowers).

(g) Late Charges. If payments of principal (other than a final installment of principal upon the Termination Date), interest due on the Obligations, or any other amounts due hereunder or under the other Financing Documents are not timely made and remain overdue for a period of five (5) days, Borrowers, without notice or demand by Agent, promptly shall pay to Agent, for its own account and not for the benefit of any other Lenders, as additional compensation to Agent in administering the Obligations, an amount equal to two percent (2.0%) of each delinquent payment.

(h) Computation of Interest and Related Fees. All interest and fees under each Financing Document shall be calculated on the basis of a three hundred sixty (360) day year for the actual number of days elapsed. The date of funding of a Loan shall be included in the calculation of interest. The date of payment of a Loan shall be excluded from the calculation of interest. If a Loan is repaid on the same day that it is made, one (1) day's interest shall be charged.

(i) Automated Clearing House Payments. If Agent (or its designated servicer or trustee on behalf of a securitization vehicle) so elects, monthly payments of principal, interest, fees, expenses or any other amounts due and owing from Borrower to Agent hereunder shall be paid to Agent by Automated Clearing House debit of immediately available funds from the financial institution account designated by Borrower Representative in the Automated Clearing House debit authorization executed by Borrowers or Borrower Representative in connection with this Agreement, and shall be effective upon receipt. Borrowers shall execute any and all forms and documentation necessary from time to time to effectuate such automatic debiting. In no event shall any such payments be refunded to Borrowers.

Section 2.3 Notes. The portion of the Loans made by each Lender shall be evidenced, if so requested by such Lender, by one or more promissory notes executed by Borrowers on a joint and several basis (each, a "**Note**") in an original principal amount equal to such Lender's Term Loan Commitments.

Section 2.4 Reserved.

Section 2.5 Reserved.

Section 2.6 General Provisions Regarding Payment; Loan Account.

(a) All payments to be made by each Borrower under any Financing Document, including payments of principal and interest made hereunder and pursuant to any other Financing Document, and all fees, expenses, indemnities and reimbursements, shall be made without set-off, recoupment or counterclaim. If any payment hereunder becomes due and payable on a day other than a Business Day, such payment shall be extended to the next succeeding Business Day and, with respect to payments of principal, interest thereon shall be payable at the then applicable rate during such extension (it being understood and agreed that, solely for purposes of calculating financial covenants and computations contained herein and determining compliance therewith, if payment is made, in full, on any such extended due date, such payment shall be deemed to have been paid on the original due date without giving effect to any extension thereto). Any payments received in the Payment Account before 12:00 Noon (Eastern time) on any date shall be deemed received by Agent on such date, and any payments received in the Payment Account at or after 12:00 Noon (Eastern time) on any date shall be deemed received by Agent on the next succeeding Business Day.

(b) Agent shall maintain a loan account (the "**Loan Account**") on its books to record Loans and other extensions of credit made by the Lenders hereunder or under any other Financing Document, and all payments thereon made by each Borrower. All entries in the Loan Account shall be made in accordance with Agent's customary accounting practices as in effect from time to time. The balance in the Loan Account, as recorded in Agent's books and records at any time shall be conclusive and binding evidence of the amounts due and owing to Agent by each Borrower absent manifest error; *provided*, *however*, that any failure to so record or any error in so recording shall not limit or otherwise affect any Borrower's duty to pay all amounts owing hereunder or under any other Financing Document. Agent shall endeavor to provide Borrowers with a monthly statement regarding the Loan Account (but neither Agent nor any Lender shall have any liability if Agent shall fail to provide any such statement). Unless any Borrower notifies Agent of any objection to any such statement (specifically describing the basis for such objection) within ninety (90) days after the date of receipt thereof, it shall be deemed final, binding and conclusive upon Borrowers in all respects as to all matters reflected therein.

Section 2.7 Maximum Interest. In no event shall the interest charged with respect to the Loans or any other Obligations of any Borrower under any Financing Document exceed the maximum amount permitted under the laws of the State of New York or of any other applicable jurisdiction. Notwithstanding anything to the contrary herein or elsewhere, if at any time the rate of interest payable hereunder or under any Note or other Financing Document (the "**Stated Rate**") would exceed the highest rate of interest permitted under any applicable law to be charged (the "**Maximum Lawful Rate**"), then for so long as the Maximum Lawful Rate would be so exceeded, the rate of interest payable shall be equal to the Maximum Lawful Rate; *provided*, *however*, that if at any time thereafter the Stated Rate is less than the Maximum Lawful Rate, each Borrower shall, to the extent permitted by law, continue to pay interest at the Maximum Lawful Rate until such time as the total interest received is equal to the total interest which would have been received had the Stated Rate been (but for the operation of this provision) the interest rate payable. Thereafter, the interest rate payable shall be the Stated Rate unless and until the Stated Rate again would exceed the Maximum Lawful Rate, in which event this provision shall again apply. In no event shall the total interest received by any Lender exceed the amount which it could lawfully have received had the interest been calculated for the full term hereof at the Maximum Lawful Rate. If, notwithstanding the prior sentence, any Lender has received interest hereunder in excess of the Maximum Lawful Rate, such excess amount shall be applied to the reduction of the principal balance of the Loans or to other amounts (other than interest) payable hereunder, and if no such principal or other amounts are then outstanding, such excess or part thereof remaining shall be paid to Borrowers. In computing interest payable with reference to the Maximum Lawful Rate applicable to any Lender, such interest shall be calculated at a daily rate equal to the Maximum Lawful Rate *divided by* the number of days in the year in which such calculation is made.

Section 2.8 Taxes; Capital Adequacy.

(a) All payments of principal and interest on the Loans and all other amounts payable hereunder shall be made free and clear of and without deduction for any present or future Taxes, except as required by applicable Law. If any applicable Law (as determined in the good faith discretion of an applicable Withholding Agent) requires the deduction or withholding of any Tax from any such payment by a Withholding Agent, then the applicable Withholding Agent shall be entitled to make such deduction or withholding and shall timely pay the full amount deducted or withheld to the relevant Governmental Authority in accordance with applicable Law and if any such withholding or deduction is in respect of an Indemnified Tax, then the Borrowers shall pay such additional amount or amounts as is necessary to ensure that the net amount actually received by the applicable recipient will equal the full amount such recipient would have received had no such withholding or deduction been required (including, without limitation, such withholdings and deductions applicable to additional sums payable under this Section 2.8). After payment of any Tax by a Borrower to a Governmental Authority pursuant to this Section 2.8, such Borrower shall promptly forward to Agent the original or a certified copy of an official receipt, a copy of the return reporting such payment, or other documentation satisfactory to Agent evidencing such payment to such authority. Borrowers shall timely pay to the relevant Governmental Authority in accordance with applicable Law, or at the option of Agent timely reimburse Agent for the payment of, any Other Taxes.

(b) The Borrowers shall indemnify Agent and Lenders, within ten (10) days after demand thereof, for the full amount of any Indemnified Taxes (including Indemnified Taxes imposed or asserted on or attributable to amounts payable under this Section 2.8) payable or paid by Agent or any Lender or required to be withheld or deducted from a payment to Agent or any Lender and any expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes and Other Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate in reasonable detail as to the amount of such payment or liability delivered to Borrowers by a Lender (with a copy to Agent), or by Agent on its own behalf or on behalf of a Lender, shall be conclusive absent manifest error.

(c) Any Lender that is entitled to an exemption from or reduction of withholding Tax with respect to payments made under any Financing Document shall deliver to Borrower Representative and Agent, at the time or times prescribed by applicable Law or reasonably requested by Borrower Representative or Agent, such properly completed and executed documentation reasonably requested by Borrower Representative or Agent as will permit such payments to be made without withholding or at a reduced rate of withholding. In addition, any Lender, if reasonably requested by Borrower Representative or Agent, shall deliver such other documentation prescribed by applicable Law or reasonably requested by Borrowers or Agent as will enable Borrowers or Agent to determine whether or not such Lender is subject to backup withholding or information reporting requirements. Notwithstanding anything to the contrary in the preceding two sentences, the completion, execution and submission of such documentation (other than such documentation set forth in Sections 2.8(c)(i), 2.8(c)(ii) and 2.8(e) below) shall not be required if in such Lender's reasonable judgment such completion, execution or submission would subject such Lender to any material unreimbursed cost or expense or would materially prejudice the legal or commercial position of such Lender.

(i) Each Lender that is not a "United States person" (as such term is defined in Section 7701(a)(30) of the Code) for U.S. federal income tax purposes and is a party hereto on the Closing Date or purports to become an assignee of an interest pursuant to Section 11.17(a) after the Closing Date (unless such Lender was already a Lender hereunder immediately prior to such assignment) (each such Lender a "**Foreign Lender**") shall, to the extent permitted by Law, execute and deliver to Borrower Representative and Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower Representative or Agent) whichever of the following is applicable: (A) in the case of a Foreign Lender claiming the benefits of an income tax treaty to which the United States is a party, (x) with respect to payments of interest under any Financing Document, two (2) properly completed and executed originals of United States Internal Revenue Service ("**IRS**") Forms W-8BEN or W-8BEN-E (or successor form) establishing an exemption from, or reduction of, U.S. federal withholding tax pursuant to the "interest" article of such tax treaty and (y) with respect to any other applicable payments under any Financing Documents, two (2) properly completed and executed originals of IRS Forms W-8BEN or W-8BEN-E (or successor form) establishing an exemption from, or reduction of, U.S. federal withholding tax pursuant to the "business profits" or "other income" article of such tax treaty; (B) two (2) executed originals of IRS Form W-8ECI (or successor form); (C) in the case of a Foreign Lender claiming the benefits of the exemption for portfolio interest under Section 881(c) of the Code, (x) a certificate substantially in the form of Exhibit E-1 to the effect that such Foreign Lender is not a "bank" within the meaning of Section 881(c)(3)(A) of the Code, a "10 percent shareholder" of any Borrower within the meaning of Section 881(c)(3)(B) of the Code, or a "controlled foreign corporation" described in Section 881(c)(3)(C) of the Code (a "**U.S. Tax Compliance Certificate**") and (y) two (2) executed originals of IRS Forms W-8BEN or W-8BEN-E (or successor form); (D) to the extent a Foreign Lender is not the beneficial owner, two (2) executed originals of IRS Form W-8IMY, accompanied by IRS Form W-8ECI, IRS Form W-8BEN or W-8BEN-E (or successor form), a U.S. Tax Compliance Certificate substantially in the form of Exhibit E-2 or Exhibit E-3, IRS Form W-9 (or successor form), and/or other certification documents from each beneficial owner, as applicable; *provided* that if the Foreign Lender is a partnership and one or more direct or indirect partners of such Foreign Lender are claiming the portfolio interest exemption, such Foreign Lender may provide a U.S. Tax Compliance Certificate substantially in the form of Exhibit E-4 on behalf of each such direct and indirect partner; or (E) other applicable forms, certificates or documents prescribed by the IRS. Each Lender agrees that if any form or certification it previously delivered expires or becomes obsolete or inaccurate in any respect, it shall update such form or certification or promptly notify Borrower Representative and Agent in writing of its legal inability to do so. In addition, to the extent permitted by applicable Law, such forms shall be delivered by each Foreign Lender upon the obsolescence or invalidity of any form previously delivered by such Foreign Lender. Each Foreign Lender shall promptly notify Borrower Representative at any time it determines that it is no longer in a position to provide any previously delivered certificate to Borrower Representative (or any other form of certification adopted by the U.S. taxing authorities for such purpose).

(ii) Each Lender that is a "United States person" (as such term is defined in Section 7701(a)(30) of the Code) for U.S. federal income tax purposes and is a party hereto on the Closing Date or purports to become an assignee of an interest pursuant to Section 11.17(a) after the Closing Date (unless such Lender was already a Lender hereunder immediately prior to such assignment) shall, to the extent permitted by Law, provide to Borrower Representative and Agent on or prior to the date on which such Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower Representative or Agent), a properly completed and executed IRS Form W-9 or any successor form certifying as to such Lender's entitlement to an exemption from U.S. backup withholding and other applicable forms, certificates or documents prescribed by the IRS or reasonably requested by Borrower Representative or Agent. Each such Lender shall promptly notify Borrowers at any time it determines that any certificate previously delivered to Borrower Representative (or any other form of certification adopted by the U.S. governmental authorities for such purposes) is no longer valid.

(iii) Any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to Borrower Representative and Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower Representative or Agent), executed copies of any other form prescribed by applicable Law as a basis for claiming exemption from or a reduction in U.S. Federal withholding Tax, duly completed, together with such supplementary documentation as may be prescribed by applicable law to permit Borrowers or Agent to determine the withholding or deduction required to be made.

(d) If any Lender determines, in its reasonable discretion, that it has received a refund in respect of any Taxes as to which it has been indemnified by any Borrower pursuant to this Section 2.8 (including by the payment of additional amounts pursuant to this Section 2.8), then it shall promptly pay an amount equal to such refund to Borrowers, net of all reasonable out-of-pocket expenses of such Lender or of Agent with respect thereto, including any Taxes; *provided*, *however*, that Borrowers, upon the written request of such Lender or Agent, agree to repay any amount paid over to Borrowers to such Lender or to Agent (plus any related penalties, interest or other charges imposed by the relevant Governmental Authority) in the event such Lender or Agent is required, for any reason, to repay such refund to such Governmental Authority. Notwithstanding anything to the contrary in this Section 2.8, in no event will the indemnified party be required to pay any amount to an indemnifying party pursuant to this Section 2.8(d) the payment of which would place the indemnified party in a less favorable net after-Tax position than the indemnified party would have been in if the Tax subject to indemnification and giving rise to such refund had not been deducted, withheld or otherwise imposed and the indemnification payments or additional amounts with respect to such Tax had never been paid. This Section 2.8 shall not be construed to require any indemnified party to make available its Tax returns (or any other information relating to its Taxes that it deems confidential) to the indemnifying party or any other Person.

(e) If a payment made to a Lender under any Financing Document would be subject to U.S. federal withholding tax imposed by FATCA if such Lender were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), such Lender shall deliver to Borrower Representative and Agent at the time or times prescribed by Law and at such time or times reasonably requested by Borrower Representative or Agent such documentation prescribed by applicable Law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by Borrower Representative or Agent as may be necessary for Borrowers and Agent to comply with their obligations under FATCA and to determine that such Lender has complied with such Lender's obligations under FATCA or to determine the amount to deduct and withhold from such payment. Solely for purposes of this clause (e), "FATCA" shall include any amendments made to FATCA after the date of this Agreement.

(f) Each Lender shall severally indemnify Agent, within ten (10) days after demand therefor, for (i) any Indemnified Taxes attributable to such Lender (but only to the extent that any Credit Party has not already indemnified Agent for such Indemnified Taxes and without limiting the obligation of the Credit Parties to do so), (ii) any Taxes attributable to such Lender's failure to comply with the provisions of Section 11.17 relating to the maintenance of a Participant Register and (iii) any Excluded Taxes attributable to such Lender, in each case, that are payable or paid by Agent in connection with any Financing Document, and any reasonable expenses arising therefrom or with respect thereto, whether or not such Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to any Lender by Agent shall be conclusive absent manifest error. Each Lender hereby authorizes Agent to set off and apply any and all amounts at any time owing to such Lender under any Financing Document or otherwise payable by Agent to such Lender from any other source against any amount due to Agent under this paragraph (f).

(g) Each party's obligations under Section 2.8(a) through (f) shall survive the resignation or replacement of Agent or any assignment of rights by, or the replacement of, a Lender, and the repayment, satisfaction or discharge of all Obligations hereunder.

(h) If any Lender shall reasonably determine that the adoption or taking effect of, or any change in, any applicable Law regarding capital adequacy, in each instance, after the Closing Date, or any change after the Closing Date in the interpretation, administration or application thereof by any Governmental Authority, central bank or comparable agency charged with the interpretation, administration or application thereof, or the compliance by any Lender or any Person controlling such Lender with any request, guideline or directive regarding capital adequacy (whether or not having the force of Law) of any such Governmental Authority, central bank or comparable agency adopted or otherwise taking effect after the Closing Date, has or would have the effect of reducing the rate of return on such Lender's or such controlling Person's capital as a consequence of such Lender's obligations hereunder to a level below that which such Lender or such controlling Person could have achieved but for such adoption, taking effect, change, interpretation, administration, application or compliance (taking into consideration such Lender's or such controlling Person's policies with respect to capital adequacy) then from time to time, upon demand by such Lender (which demand shall be accompanied by a certificate setting forth the basis for such demand and a calculation of the amount thereof in reasonable detail, a copy of which shall be furnished to Agent), Borrowers shall promptly pay to such Lender such additional amount as will compensate such Lender or such controlling Person for such reduction, so long as such amounts have accrued on or after the day which is two hundred seventy (270) days prior to the date on which such Lender first made demand therefor; *provided* that notwithstanding anything in this Agreement to the contrary, (i) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith and (ii) all requests, rules, guidelines or directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, in each case pursuant to Basel III, shall in each case be deemed to be a "change in applicable Law", regardless of the date enacted, adopted or issued; *provided; further;* that this Section 2.8(h) shall apply only to Taxes that are not (A) Indemnified Taxes, (B) Taxes described in clauses (b) through (d) of the definition of Excluded Taxes, or (c) Connection Income Taxes.

(i) If any Lender requests compensation under either Section 2.1(a)(iv) or Section 2.8(h), or requires Borrowers to pay any additional amount to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 2.8, then, upon the written request of Borrower Representative, such Lender shall use reasonable efforts to designate a different lending office for funding or booking its Loans hereunder or to assign its rights and obligations hereunder (subject to the provisions of Section 11.17) to another of its offices, branches or affiliates, if, in the reasonable judgment of such Lender, such designation or assignment (i) would eliminate or materially reduce amounts payable pursuant to any such Section, as the case may be, in the future, (ii) would not subject such Lender to any unreimbursed cost or expense and (iii) would not otherwise be disadvantageous to such Lender (as determined in its sole good faith discretion). Without limitation of the provisions of Section 12.14, each Borrower hereby agrees to pay all reasonable and documented, out-of-pocket costs and expenses incurred by any Lender in connection with any such designation or assignment.

Section 2.9 Appointment of Borrower Representative.

(a) Each Borrower hereby irrevocably appoints and constitutes Borrower Representative as its agent and attorney-in-fact to request and receive Loans in the name or on behalf of such Borrower and any other Borrowers, deliver Notices of Borrowing, give instructions with respect to the disbursement of the proceeds of the Loans, giving and receiving all other notices and consents hereunder or under any of the other Financing Documents and taking all other actions (including in respect of compliance with covenants) in the name or on behalf of any Borrower or Borrowers pursuant to this Agreement and the other Financing Documents. Agent and Lenders may disburse the Loans to such bank account of Borrower Representative or a Borrower or otherwise make such Loans to a Borrower, in each case as Borrower Representative may designate or direct, without notice to any other Borrower. Notwithstanding anything to the contrary contained herein, Agent may at any time and from time to time require that Loans to or for the account of any Borrower be disbursed directly to an operating account of such Borrower.

(b) Borrower Representative hereby accepts the appointment by Borrowers to act as the agent and attorney-in-fact of Borrowers pursuant to this Section 2.9. Borrower Representative shall ensure that the disbursement of any Loans that are at any time requested by or to be remitted to or for the account of a Borrower, shall be remitted or issued to or for the account of such Borrower.

(c) Each Borrower hereby irrevocably appoints and constitutes Borrower Representative as its agent to receive statements on account and all other notices from Agent, Lenders with respect to the Obligations or otherwise under or in connection with this Agreement and the other Financing Documents.

(d) Any notice, election, representation, warranty, agreement or undertaking made or delivered by or on behalf of any Borrower by Borrower Representative shall be deemed for all purposes to have been made or delivered by such Borrower, as the case may be, and shall be binding upon and enforceable against such Borrower to the same extent as if made or delivered directly by such Borrower.

(e) No resignation by or termination of the appointment of Borrower Representative as agent and attorney-in-fact as aforesaid shall be effective, except after ten (10) Business Days' prior written notice to Agent. If the Borrower Representative resigns under this Agreement, Borrowers shall be entitled to appoint a successor Borrower Representative (which shall be a Borrower and shall be reasonably acceptable to Agent as such successor). Upon the acceptance of its appointment as successor Borrower Representative hereunder, such successor Borrower Representative shall succeed to all the rights, powers and duties of the retiring Borrower Representative and the term "Borrower Representative" means such successor Borrower Representative for all purposes of this Agreement and the other Financing Documents, and the retiring or terminated Borrower Representative's appointment, powers and duties as Borrower Representative shall be thereupon terminated.

Section 2.10 Joint and Several Liability; Rights of Contribution; Subordination and Subrogation.

(a) Borrowers are defined collectively to include all Persons named as one of the Borrowers herein; *provided*, *however*, that any references herein to "any Borrower", "each Borrower" or similar references, shall be construed as a reference to each individual Person named as one of the Borrowers herein. Each Person so named shall be jointly and severally liable for all of the obligations of Borrowers under this Agreement. Each Borrower, individually, expressly understands, agrees and acknowledges, that the credit facilities would not be made available on the terms herein in the absence of the collective credit of all of the Persons named as the Borrowers herein, the joint and several liability of all such Persons, and the cross-collateralization of the collateral of all such Persons. Accordingly, each Borrower individually acknowledges that the benefit to each of the Persons named as one of the Borrowers as a whole constitutes reasonably equivalent value, regardless of the amount of the credit facilities actually borrowed by, advanced to, or the amount of collateral provided by, any individual Borrower. In addition, each entity named as one of the Borrowers herein hereby acknowledges and agrees that all of the representations, warranties, covenants, obligations, conditions, agreements and other terms contained in this Agreement shall be applicable to and shall be binding upon and measured and enforceable individually against each Person named as one of the Borrowers herein as well as all such Persons when taken together. By way of illustration, but without limiting the generality of the foregoing, the terms of Section 10.1 of this Agreement are to be applied to each individual Person named as one of the Borrowers herein (as well as to all such Persons taken as a whole), such that the occurrence of any of the events described in Section 10.1 of this Agreement as to any Person named as one of the Borrowers herein shall constitute an Event of Default even if such event has not occurred as to any other Persons named as the Borrowers or as to all such Persons taken as a whole.

(b) Notwithstanding any provisions of this Agreement to the contrary, it is intended that the joint and several nature of the liability of each Borrower for the Obligations and the Liens granted by Borrowers to secure the Obligations not constitute a Fraudulent Conveyance (as defined below). Consequently, Agent, Lenders and each Borrower agree that if the liability of a Borrower for the Obligations or any Liens granted by such Borrower securing the Obligations would, but for the application of this sentence, constitute a Fraudulent Conveyance, the liability of such Borrower and the Liens securing such liability shall be valid and enforceable only to the maximum extent that would not cause such liability or such Lien to constitute a Fraudulent Conveyance, and the liability of such Borrower and this Agreement shall automatically be deemed to have been amended accordingly. For purposes hereof, the term "**Fraudulent Conveyance**" means a fraudulent conveyance under Section 548 of Chapter 11 of Title II of the Bankruptcy Code or a fraudulent conveyance or fraudulent transfer under the applicable provisions of any fraudulent conveyance or fraudulent transfer law or similar law of any state, nation or other governmental unit, as in effect from time to time.

(c) Agent is hereby authorized, without notice or demand (except as otherwise specifically required under this Agreement) and without affecting the liability of any Borrower hereunder, at any time and from time to time, to (i) renew, extend or otherwise increase the time for payment of the Obligations; (ii) with the written agreement of any Borrower, change the terms relating to the Obligations or otherwise modify, amend or change the terms of any Note or other agreement, document or instrument now or hereafter executed by any Borrower and delivered to Agent for any Lender; (iii) accept partial payments of the Obligations; (iv) take and hold any Collateral for the payment of the Obligations or for the payment of any guaranties of the Obligations and exchange, enforce, waive and release any such Collateral; (v) apply any such Collateral and direct the order or manner of sale thereof as Agent, in its reasonable discretion, may determine; and (vi) settle, release, compromise, collect or otherwise liquidate the Obligations and any Collateral therefor in any manner, all guarantor and surety defenses being hereby waived by each Borrower. Except as specifically provided in this Agreement or any of the other Financing Documents, Agent shall have the exclusive right to determine the time and manner of application of any payments or credits, whether received from any Borrower or any other source, and such determination shall be binding on all Borrowers. All such payments and credits may be applied, reversed and reapplied, in whole or in part, to any of the Obligations that Agent shall determine, in its reasonable discretion, without affecting the validity or enforceability of the Obligations of any other Borrower.

(d) Each Borrower hereby agrees that, except as hereinafter provided, its obligations hereunder shall be unconditional, irrespective of (i) the absence of any attempt to collect the Obligations from any obligor or other action to enforce the same; (ii) the waiver or consent by Agent with respect to any provision of any instrument evidencing the Obligations, or any part thereof, or any other agreement heretofore, now or hereafter executed by a Borrower and delivered to Agent; (iii) failure by Agent to take any steps to perfect and maintain its security interest in, or to preserve its rights to, any security or collateral for the Obligations; (iv) the institution of any proceeding under the Bankruptcy Code or any similar proceeding, by or against a Borrower or Agent's election in any such proceeding of the application of Section 1111(b)(2) of the Bankruptcy Code; (v) any borrowing or grant of a security interest by a Borrower as debtor-in-possession, under Section 364 of the Bankruptcy Code; (vi) the disallowance, under Section 502 of the Bankruptcy Code, of all or any portion of Agent's claim(s) for repayment of any of the Obligations; or (vii) any other circumstance other than payment in full of the Obligations which might otherwise constitute a legal or equitable discharge or defense of a guarantor or surety.

(e) Borrowers hereby agree, as between themselves, that to the extent that Agent, on behalf of Lenders, shall have received from any Borrower any Recovery Amount (as defined below), then the paying Borrower shall have a right of contribution against each other Borrower in an amount equal to such other Borrower's contributive share of such Recovery Amount; *provided*, *however*, that in the event any Borrower suffers a Deficiency Amount (as defined below), then the Borrower suffering the Deficiency Amount shall be entitled to seek and receive contribution from and against the other Borrowers in an amount equal to the Deficiency Amount; and *provided*, *further*, that in no event shall the aggregate amounts so reimbursed by reason of the contribution of any Borrower equal or exceed an amount that would, if paid, constitute or result in Fraudulent Conveyance. Until all Obligations have been paid and satisfied in full (other than inchoate indemnification obligations for which no claim has yet been made), no payment made by or for the account of a Borrower including, without limitation, (i) a payment made by such Borrower on behalf of the liabilities of any other Borrower, or (ii) a payment made by any other Guarantor under any Guarantee, shall entitle such Borrower, by subrogation or otherwise, to any payment from such other Borrower or from or out of such other Borrower's property. The right of each Borrower to receive any contribution under this Section 2.10(e) or by subrogation or otherwise from any other Borrower shall be subordinate in right of payment to the Obligations and such Borrower shall not exercise any right or remedy against such other Borrower or any property of such other Borrower by reason of any performance of such Borrower of its joint and several obligations hereunder, until the Obligations (other than inchoate indemnification obligations for which no claim has yet been made) have been indefeasibly paid and satisfied in full, and no Borrower shall exercise any right or remedy with respect to this Section 2.10(e) until the Obligations (other than inchoate indemnification obligations for which no claim has yet been made) have been indefeasibly paid and satisfied in full. As used in this Section 2.10(e), the term "**Recovery Amount**" means the amount of proceeds received by or credited to Agent from the exercise of any remedy of the Lenders under this Agreement or the other Financing Documents, including, without limitation, the sale of any Collateral. As used in this Section 2.10(e), the term "**Deficiency Amount**" means any amount that is less than the entire amount a Borrower is entitled to receive by way of contribution or subrogation from, but that has not been paid by, the other Borrowers in respect of any Recovery Amount attributable to the Borrower entitled to contribution, until the Deficiency Amount has been reduced to Zero Dollars ($0) through contributions and reimbursements made under the terms of this Section 2.10(e) or otherwise

Section 2.11 [Reserved].

Section 2.12 Termination; Restriction on Termination.

(a) Termination by Lenders. In addition to the rights set forth in Section 10.2, Agent may, and at the direction of Required Lenders shall, terminate this Agreement without notice upon or after the occurrence and during the continuance of an Event of Default.

(b) Termination by Borrowers. Upon at least five (5) Business Day' prior written notice and pursuant to payoff documentation in form and substance reasonably satisfactory to Agent and Lenders, Borrowers may, at its option, terminate this Agreement; *provided*, *however*, that no such termination shall be effective until Borrowers have complied with Section 2.12(c) and the Obligations are paid in full (other than inchoate indemnification obligations for which no claim has yet been made). Any notice of termination given by Borrowers shall be irrevocable unless all Lenders otherwise agree in writing and no Lender shall have any obligation to make any Loans on or after the termination date stated in such notice. Borrowers may elect to terminate this Agreement in its entirety only. No section of this Agreement or type of Loan available hereunder may be terminated singly.

(c) Effectiveness of Termination. All of the Obligations shall be immediately due and payable upon the Termination Date. All undertakings, agreements, covenants, warranties and representations of Borrowers contained in the Financing Documents shall survive any such termination and Agent shall retain its Liens in the Collateral and Agent and each Lender shall retain all of its rights and remedies under the Financing Documents notwithstanding such termination until all Obligations have been discharged or paid, in full, in immediately available funds, including, without limitation, all Obligations under Section 2.2 and the terms of any Fee Letter resulting from such termination (in each case, other than inchoate indemnification obligations for which no claim has yet been made). Notwithstanding the foregoing or the payment in full of the Obligations, Agent shall not be required to terminate its Liens in the Collateral unless, with respect to any loss or damage Agent may incur as a result of dishonored checks or other items of payment received by Agent from Borrower or any Account Debtor and applied to the Obligations, Agent shall, at its option, (a) have received a written agreement reasonably satisfactory to Agent, executed by Borrowers and by any Person whose loans or other advances to Borrowers are used in whole or in part to satisfy the Obligations, indemnifying Agent and each Lender from any such loss or damage or (b) have retained cash Collateral or other Collateral for such period of time as Agent, in its discretion, may deem necessary to protect Agent and each Lender from any such loss or damage. Upon the payment in full, in cash in immediately available funds, of all Obligations and the termination of the Term Loan Commitments, as Borrower may reasonably request, Agent shall, at Borrower's sole cost and expense, execute and deliver such documents evidencing the release and termination of the security interest in the Collateral granted under this Agreement and the other Financing Documents pursuant to and in accordance with the terms of any applicable payoff documentation.

ARTICLE 3 - REPRESENTATIONS AND WARRANTIES

To induce Agent and Lenders to enter into this Agreement and to make the Loans and other credit accommodations contemplated hereby, each Borrower hereby represents and warrants to Agent and each Lender that:

Section 3.1 Existence and Power. Each Credit Party (a) is an entity as specified on Schedule 3.1, (b) is duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization and other jurisdictions specified on Schedule 3.1 and no other jurisdiction, (c) has the same legal name as it appears in such Credit Party's Organizational Documents and an organizational identification number (if any), in each case as specified on Schedule 3.1, (d) has all powers to own its assets and has powers and all Permits necessary in the operation of its business as presently conducted or as proposed to be conducted, except where the failure to have such Permits would not reasonably be expected to have a Material Adverse Effect, and (e) is qualified to do business as a foreign entity in each jurisdiction in which it is required to be so qualified, which jurisdictions as of the Closing Date are specified on Schedule 3.1, except in the case of this clause (e) where the failure to be so qualified would not reasonably be expected to have a Material Adverse Effect. Except as set forth on Schedule 3.1, no Credit Party (x) has had, over the five (5) year period preceding the Closing Date, any name other than its current name, or (y) was incorporated or organized under the laws of any jurisdiction other than its current jurisdiction of incorporation or organization.

Section 3.2 Organization and Governmental Authorization; No Contravention. The execution, delivery and performance by each Credit Party of the Financing Documents to which it is a party (a) are within its powers, (b) have been duly authorized by all necessary action pursuant to its Organizational Documents, (c) require no further action by or in respect of, or filing with, any Governmental Authority other than (i) recordings, filings and other perfection actions in connection with the Liens granted to Agent under this Agreement or any Security Document and (ii) those obtained or made on or prior to the Closing Date and (d) do not violate, conflict with or cause a breach or a default under (i) any Law applicable to any Credit Party, (ii) any of the Organizational Documents of any Credit Party, or (iii) any agreement or instrument binding upon it, except for such violations, conflicts, breaches or defaults as would not, with respect to this clause (iii), reasonably be expected to have a Material Adverse Effect.

Section 3.3 Binding Effect. Each of the Financing Documents to which any Credit Party is a party constitutes a valid and binding agreement or instrument of such Credit Party, enforceable against such Credit Party in accordance with its respective terms, except as the enforceability thereof may be limited by bankruptcy, insolvency or other similar laws relating to the enforcement of creditors' rights generally and by general equitable principles. Each Financing Document has been duly executed and delivered by each Credit Party party thereto.

Section 3.4 Capitalization. The authorized equity securities of each of the Credit Parties as of the Closing Date are as set forth on Schedule 3.4. All issued and outstanding equity securities of each of the Credit Parties are duly authorized and validly issued, fully paid, nonassessable, free and clear of all Liens other than those in favor of Agent for the benefit of Agent and Lenders, and such equity securities were issued in compliance with all applicable Laws. The identity of the holders of the equity securities of each of the Credit Parties and the percentage of their fully-diluted ownership of the equity securities of each of the Credit Parties as of the Closing Date is set forth on Schedule 3.4. No shares of the capital stock or other Equity Interests of any Credit Party, other than as described above, are issued and outstanding as of the Closing Date. Except as set forth on Schedule 3.4, as of the Closing Date there are no preemptive or other outstanding rights, options, warrants, conversion rights or similar agreements or understandings for the purchase or acquisition from any Credit Party of any equity securities of any such entity.

Section 3.5 Financial Information. All information delivered to Agent and pertaining to the financial condition of any Credit Party fairly in all material respects presents the financial position of such Credit Party as of such date and for such period then ended in conformity with GAAP (and as to unaudited financial statements, subject to normal year-end adjustments and the absence of footnote disclosures). Since December 31, 2019, there has been (a) no material adverse change in the business, operations, properties, or condition (financial or otherwise) of any Credit Party and (b) no fact, event or circumstance that could reasonably be expected to result in a Material Adverse Effect.

Section 3.6 Litigation. Except as set forth on Schedule 3.6 as of the Closing Date, and except as hereafter disclosed to Agent in writing, there is no Litigation pending against, or to such Borrower's knowledge threatened in writing against, any Credit Party or any of their Subsidiaries, which, if adversely determined, could reasonably be expected to result in any judgment or liability of more than One Million Dollars ($1,000,000). There is no Litigation pending in which an adverse decision could reasonably be expected to have a Material Adverse Effect or which in any manner draws into question the validity of any of the Financing Documents.

Section 3.7 Ownership of Property. Each Borrower and each of its Subsidiaries is the lawful sole owner of, has good and marketable title to and is in lawful possession of, or has valid leasehold interests in, all material properties, accounts and other assets (real or personal, tangible, intangible or mixed) purported or reported to be owned or leased (as the case may be) by such Person.

Section 3.8 No Default. No Event of Default, or to such Borrower's knowledge, Default, has occurred and is continuing. No Credit Party is in breach or default under or with respect to any contract, agreement, lease or other instrument to which it is a party or by which its property is bound or affected, which breach or default could reasonably be expected to have a Material Adverse Effect.

Section 3.9 Labor Matters. As of the Closing Date, there are no strikes or other labor disputes pending or, to any Borrower's knowledge, threatened in writing against any Credit Party, which could reasonably be expected to have a Material Adverse Effect. Hours worked and payments made to the employees of the Credit Parties have not been in material violation of the Fair Labor Standards Act or any other applicable Law dealing with such matters. All payments due from the Credit Parties, or for which any claim may be made against any of them, on account of wages and employee and retiree health and welfare insurance and other benefits have been paid or accrued as a liability on their books, as the case may be. The consummation of the transactions contemplated by the Financing Documents will not give rise to a right of termination or right of renegotiation on the part of any union under any collective bargaining agreement to which it is a party or by which it is bound, the result of which could reasonably be expected to have a Material Adverse Effect.

Section 3.10 Investment Company Act. No Credit Party is an "investment company" or a company "controlled" by an "investment company" or a "subsidiary" of an "investment company," all within the meaning of the Investment Company Act of 1940.

Section 3.11 Margin Regulations.

(a) The Credit Parties and their Subsidiaries do not own any stock, partnership interest or other equity securities, except for Permitted Investments. Without limiting the foregoing, the Credit Parties and their Subsidiaries do not own or hold any Margin Stock.

(b) None of the proceeds from the Loans have been or will be used, directly or indirectly, for the purpose of purchasing or carrying any "margin stock" (as defined in Regulation U of the Federal Reserve Board), for the purpose of reducing or retiring any indebtedness which was originally incurred to purchase or carry any "margin stock" or for any other purpose which might cause any of the Loans to be considered a "purpose credit" within the meaning of Regulation T, U or X of the Federal Reserve Board.

Section 3.12 Compliance With Laws; Anti-Terrorism Laws.

(a) Each Credit Party is in compliance with the requirements of all applicable Laws, except for such Laws the noncompliance with which could not reasonably be expected to have a Material Adverse Effect.

(b) None of the Credit Parties and, to the knowledge of the Credit Parties, none of their Affiliates (i) is in violation of any Anti-Terrorism Law, (ii) engages in or conspires to engage in any transaction that evades or avoids, or has the purpose of evading or avoiding, or attempts to violate, any of the prohibitions set forth in any Anti-Terrorism Law, (iii) is a Blocked Person, or is controlled by a Blocked Person, (iv) is acting or will act for or on behalf of a Blocked Person, (v) is associated with, or will become associated with, a Blocked Person or (vi) is providing, or will provide, material, financial or technical support or other services to or in support of acts of terrorism of a Blocked Person. No Credit Party nor, to the knowledge of any Credit Party, any of its Affiliates or agents acting or benefiting in any capacity in connection with the transactions contemplated by this Agreement, (A) conducts any business or engages in making or receiving any contribution of funds, goods or services to or for the benefit of any Blocked Person, or (B) deals in, or otherwise engages in any transaction relating to, any property or interest in property blocked pursuant to Executive Order No. 13224, any similar executive order or other Anti-Terrorism Law.

Section 3.13 Taxes. All federal, state, and local income and all other material tax returns, reports and statements required to be filed by or on behalf of each Credit Party have been filed with the appropriate Governmental Authorities in all jurisdictions in which such returns, reports and statements are required to be filed and, except to the extent subject to a Permitted Contest, all federal, income and other material Taxes (including real property Taxes) and other charges shown to be due and payable in respect thereof have been timely paid prior to the date on which any fine, penalty, interest, late charge or loss may be added thereto for nonpayment thereof.

Section 3.14 Compliance with ERISA.

(a) Each ERISA Plan (and the related trusts and funding agreements) complies in form and in operation with, has been administered in compliance with, and the terms of each ERISA Plan satisfy, the applicable requirements of ERISA and the Code in all material respects. Each ERISA Plan which is intended to be qualified under Section 401(a) of the Code is so qualified, and the United States Internal Revenue Service has issued a favorable determination letter with respect to each such ERISA Plan which may be relied on currently. No Credit Party has incurred liability for any material excise tax under any of Sections 4971 through 5000 of the Code.

(b) Except as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect, each Borrower and each Subsidiary is in compliance with the applicable provisions of ERISA and the provision of the Code relating to ERISA Plans and the regulations and published interpretations therein. During the thirty-six (36) month period prior to the Closing Date or the making of any Loan (i) no steps have been taken to terminate any Pension Plan, and (ii) no contribution failure has occurred with respect to any Pension Plan sufficient to give rise to a Lien under Section 303(k) of ERISA or Section 430(k) of the Code and no event has occurred that would give rise to a Lien under Section 4068 of ERISA. No condition exists or event or transaction has occurred with respect to any Pension Plan which would result in the incurrence by any Credit Party of any material liability, fine or penalty. No Credit Party has incurred liability to the PBGC (other than for current premiums) with respect to any employee Pension Plan. All contributions (if any) have been made on a timely basis to any Multiemployer Plan that are required to be made by any Credit Party or any other member of the Controlled Group under the terms of the plan or of any collective bargaining agreement or by applicable Law; no Credit Party nor any member of the Controlled Group has withdrawn or partially withdrawn from any Multiemployer Plan, incurred any withdrawal liability with respect to any such plan or received notice of any claim or demand for withdrawal liability or partial withdrawal liability from any such plan, and no condition has occurred which, if continued, would result in a withdrawal or partial withdrawal from any such plan, and no Credit Party nor any member of the Controlled Group has received any notice that any Multiemployer Plan is in reorganization, that increased contributions may be required to avoid a reduction in plan benefits or the imposition of any excise tax, that any such plan is or has been funded at a rate less than that required under Section 412 of the Code, that any such plan is or may be terminated, or that any such plan is or may become insolvent.

Section 3.15 Consummation of Financing Documents; Brokers. Except for fees payable to Agent and/or Lenders, no broker, finder or other intermediary has brought about the obtaining, making or closing of the transactions contemplated by the Financing Documents, and no Credit Party has or will have any obligation to any Person in respect of any finder's or brokerage fees, commissions or other expenses in connection herewith or therewith.

Section 3.16 [Reserved].

Section 3.17 Material Contracts. Except for the Financing Documents and the agreements set forth on Schedule 3.17, as of the Closing Date there are no Material Contracts. The consummation of the transactions contemplated by the Financing Documents will not give rise to a right of termination in favor of any party to any Material Contract (other than any Credit Party), except for such Material Contracts the noncompliance with which would not reasonably be expected to have a Material Adverse Effect.

Section 3.18 Compliance with Environmental Requirements; No Hazardous Materials. Except in each case as set forth on Schedule 3.18:

(a) no notice, notification, demand, request for information, citation, summons, complaint or order has been issued, no complaint has been filed, no penalty has been assessed and no investigation or review is pending, or to such Borrower's knowledge, threatened in writing by any Governmental Authority or other Person with respect to any (i) alleged violation by any Credit Party of any Environmental Law, (ii) alleged failure by any Credit Party to have any Permits required in connection with the conduct of its business or to comply with the terms and conditions thereof, (iii) any generation, treatment, storage, recycling, transportation or disposal of any Hazardous Materials, or (iv) release of Hazardous Materials, in each case except where the failure to obtain such document could not reasonably be expected to have a Material Adverse Effect; and

(b) no property now owned or leased by any Credit Party and, to the knowledge of each Borrower, no such property previously owned or leased by any Credit Party, to which any Credit Party has, directly or indirectly, transported or arranged for the transportation of any Hazardous Materials in violation of any Applicable Law, is listed or, to such Borrower's knowledge, proposed for listing, on the National Priorities List promulgated pursuant to CERCLA, or CERCLIS (as defined in CERCLA) or any similar state list or is the subject of federal, state or local enforcement actions or, to the knowledge of such Borrower, other investigations which may lead to claims against any Credit Party for clean-up costs, remedial work, damage to natural resources or personal injury claims, including, without limitation, claims under CERCLA, which claims could reasonably be expected to have a Material Adverse Effect.

For purposes of this Section 3.18, each Credit Party shall be deemed to include any business or business entity (including a corporation) that is, in whole or in part, a predecessor of such Credit Party.

Section 3.19 Intellectual Property and License Agreements. A list of all Registered Intellectual Property of each Credit Party and all material in-bound license or sublicense agreements and exclusive out-bound license or sublicense agreements (but in each case excluding in-bound licenses of over-the-counter and other software that is commercially available to the public, open source licenses and enabling licenses in the Ordinary Course of Business), as of the Closing Date and, as updated pursuant to Section 4.15, is set forth on Schedule 3.19. Schedule 3.19 shall be prepared by Borrower in the form provided by Agent and contain all information required in such form. Except for Permitted Licenses and Permitted Liens arising by operation of law, each Credit Party is the sole owner of its material Intellectual Property free and clear of any Liens. Each granted material patent owned by any Credit Party is valid and enforceable in all material respects and no part of the Material Intangible Assets has been judged invalid or unenforceable, in whole or in part, and to the best of Borrower's knowledge, no claim has been made that any part of the Material Intangible Assets violates the rights of any third party in any material respect. Except as set forth on Schedule 3.19 on the Closing Date, each Borrower possesses the object code and user manuals for all software used by it, and the source code and all documentation required for effective use of it.

Section 3.20 Solvency. After giving effect to the Loan advance and the liabilities and obligations of each Borrower under the Financing Documents, each Borrower and each additional Credit Party is Solvent.

Section 3.21 Full Disclosure. None of the written information (financial or otherwise) furnished by or on behalf of any Credit Party to Agent or any Lender in connection with the consummation of the transactions contemplated by the Financing Documents, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements contained herein or therein not misleading in light of the circumstances under which such statements were made. All financial projections delivered to Agent and the Lenders by Borrowers (or their agents) have been prepared on the basis of the assumptions stated therein. Such projections represent each Borrower's best estimate of such Borrower's future financial performance and such assumptions are believed by such Borrower to be fair and reasonable in light of current business conditions; *provided*, *however*, that Borrowers can give no assurance that such projections will be attained. Agent and each Lender acknowledges and agrees that all financial performance projections delivered to Agent represent Borrowers' best good faith estimate of future financial performance and are based on assumptions believed by Borrowers to be fair and reasonable in light of current market conditions, it being acknowledged and agreed by Agent and Lenders that projections as to future events are not to be viewed as facts and that the actual results during the period or periods covered by such projections may differ from the projected results.

Section 3.22 [Reserved].

Section 3.23 Subsidiaries. Borrowers do not own any stock, partnership interests, limited liability company interests or other equity securities or Subsidiaries except for Permitted Investments.

Section 3.24 Regulatory Matters.

(a) All of Borrowers' and their Subsidiaries' material Products and material Regulatory Required Permits (limited to those Regulatory Required Permits the loss of which would reasonably be expected to have a Material Adverse Effect) are listed on Schedule 4.17 on the Closing Date (as updated from time to time as required under Section 4.15). With respect to each Product, (i) the Borrowers and their Subsidiaries have received, and such Product is the subject of, all Regulatory Required Permits needed in connection with the testing, manufacture, marketing or sale of such Product as currently being conducted by or on behalf of Borrower, in each case except where the failure to obtain such Regulatory Required Permits could not reasonably be expected to have a Material Adverse Effect and (ii) such Product is being tested, manufactured, marketed or sold, as the case may be, by Borrowers (or to the Borrowers' knowledge, by any applicable third parties) in compliance with all applicable Laws and Regulatory Required Permits in each case except where the failure to do so could not reasonably be expected to have a Material Adverse Effect.

(b) None of the Borrowers or any Subsidiary thereof are in violation of any Healthcare Law, except where any such violation would not reasonably be expected to have a Material Adverse Effect.

(c) No Borrower or any Subsidiary thereof receives any material payments directly (including through any third party payment processor) from Medicare, Medicaid, or TRICARE.

(d) To the Borrowers' knowledge (after reasonable inquiry), none of the Borrowers or their Subsidiaries' officers, directors, employees, shareholders, their agents or affiliates has made an untrue statement of material fact or fraudulent statement to the FDA or failed to disclose a material fact required to be disclosed to the FDA, committed an act, made a statement, or failed to make a statement that could reasonably be expected to provide a basis for the FDA to invoke its policy respecting "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities," set forth in 56 Fed. Regulation 46191 (September 10, 1991).

(e) Except as would not reasonably be expected to result in a Material Adverse Effect, each Product each Product has been and/or shall be manufactured, imported, possessed, owned, warehoused, marketed, promoted, sold, labeled, furnished, distributed and marketed and each service has been conducted in accordance with all applicable Permits and Laws.

(f) No Borrower, nor any Subsidiary thereof, is subject to any proceeding, suit or, to any Borrower's knowledge, investigation by any federal, state, provincial or local government or quasi-governmental body, agency, board or authority or any other administrative or investigative body (including the Office of the Inspector General of the United States Department of Health and Human Services),which could reasonably be expected to result in a Material Adverse Effect.

(g) As of the Closing Date, there have been no material Regulatory Reporting Events.

Section 3.25 [Reserved].

Section 3.26 Senior Indebtedness Status. The Obligations of each Credit Party under this Agreement and each of the other Financing Documents ranks and shall continue to rank at least senior in priority of payment to all Debt that is contractually subordinated to the Obligations of each such Person under this Agreement and is designated as "Senior Indebtedness" (or an equivalent term) under all instruments and documents, now or in the future, relating to all Debt that is contractually subordinated to the Obligations under this Agreement of each such Person.

Section 3.27 Accuracy of Schedules. All information set forth in the Schedules to this Agreement is true, accurate and complete as of the Closing Date. All information set forth in the Perfection Certificate is true, accurate and complete as of the Closing Date and any other subsequent date in which Borrower is requested to update such certificate.

ARTICLE 4 - AFFIRMATIVE COVENANTS

Each Borrower agrees that:

Section 4.1 Financial Statements and Other Reports and Notices. Each Borrower will deliver to Agent: as soon as available, but no later than thirty (30) days after the last day of each month, a company prepared consolidated (and upon Agent's reasonable request consolidating) balance sheet, cash flow and income statement (including year-to-date results) covering Borrowers' and its Consolidated Subsidiaries' consolidated and consolidating operations during the period, prepared under GAAP (subject to normal year-end adjustments and the absence of footnote disclosures), consistently applied, setting forth in comparative form the corresponding figures as at the end of the corresponding calendar month of the previous fiscal year and the projected figures for such period based upon the projections required hereunder, all in reasonable detail, certified by a Responsible Officer and in a form reasonably acceptable to Agent;

(a) upon Agent's reasonable request, together with the financial reporting package described in (a) above, evidence of payment and satisfaction of all payroll, withholding and similar taxes due and owing by all Borrowers with respect to the payroll period(s) occurring during such month;

(b) as soon as available, but no later than one hundred fifty (150) days after the last day of Borrower's fiscal year, audited consolidated (and upon Agent's reasonable request consolidating) financial statements prepared under GAAP, consistently applied, together with an unqualified opinion (other than a going concern qualification based solely on a determination that any Borrower has less than 12 months liquidity) on the financial statements from an independent certified public accounting firm acceptable to Agent in its reasonable discretion;

(c) in the event that such Credit Party is or becomes subject to the reporting requirements under the Securities Exchange Act of 1934, within ten (10) days of delivery or filing thereof, copies of all statements, reports and notices made available to Borrower's security holders or to any holders of Subordinated Debt and copies of all reports and other filings made by Borrower with any stock exchange on which any securities of any Borrower are traded and/or the SEC;

(d) [reserved];

(e) prompt written notice of an event that materially and adversely affects the value of any Material Intangible Assets;

(f) within sixty (60) days after the start of each fiscal year, projections for the forthcoming two fiscal years, on a quarterly basis for the current year and on an annual basis for the subsequent year;

(g) promptly (but in any event within ten (10) days of any request therefor) such readily available other budgets, sales projections, operating plans and other financial information and information, reports or statements regarding the Borrowers, their business and the Collateral as Agent may from time to time reasonably request;

(h) together with each delivery of financial statements pursuant to clause (a) above, deliver to Agent, a duly completed Compliance Certificate signed by a Responsible Officer setting forth calculations showing monthly cash and Cash Equivalents of (i) Borrowers, (ii) Borrowers and their Consolidated Subsidiaries and (iii) the Restricted Foreign Subsidiaries, and compliance with the financial covenants set forth in this Agreement;

(i) written notice to Agent promptly, but in any event within ten (10) Business Days of a Responsible Officer of a Borrower receiving written notice or otherwise becoming aware that:

(i) any material Regulatory Required Permit has been revoked or withdrawn;

(ii) any Governmental Authority, including without limitation the FDA, has commenced against a Credit Party or a Subsidiary thereof, any action to enjoin a Credit Party or a Subsidiary thereof from conducting their businesses at any facility owned or used by them or for any material civil penalty, injunction, seizure or criminal action;

(iii) receipt by a Borrower or any Subsidiary thereof from the FDA a warning letter, Form FDA-483, "Untitled Letter," other material correspondence or material notice setting forth alleged violations of laws and regulations enforced by the FDA, or any comparable material correspondence from any state or local authority responsible for regulating drug or medical device products and establishments, or any comparable material correspondence from any foreign counterpart of the FDA, or any comparable material correspondence from any foreign counterpart of any state or local authority with regard to any material Product or the manufacture, processing, packing, or holding thereof; or

(iv) any Borrower or any Subsidiary thereof engaging in any Recalls (other than discrete batches or lots that are not material in quantity or amount and are not made in conjunction with a larger Recall of material Products) (each of the events set forth in clauses (i)-(iv) a "**Regulatory Reporting Event**");

(j) promptly after the request by any Lender, all documentation and other information that such Lender reasonably requests in order to comply with its ongoing obligations under applicable "know your customer" and anti-money laundering rules and regulations, including, without limitation, the USA PATRIOT Act; and

(k) promptly, but in any event within five (5) Business Days, after any Responsible Officer of any Borrower obtains knowledge of the occurrence of any event or change (including, without limitation, any notice of any violation of applicable Healthcare Laws) that has resulted or could reasonably be expected to result in, either in any case or in the aggregate, a Material Adverse Effect, a certificate of a Responsible Officer specifying the nature and period of existence of any such event or change, or specifying the notice given or action taken by such holder or Person and the nature of such event or change, and what action the applicable Credit Party or Subsidiary has taken, is taking or proposes to take with respect thereto.

Section 4.2 Payment and Performance of Obligations. Each Borrower (a) will pay and discharge, and cause each Subsidiary to pay and discharge, on a timely basis as and when due, all of their respective obligations and liabilities, except for such obligations and/or liabilities (i) that may be the subject of a Permitted Contest, and (ii) the nonpayment or nondischarge of which could not reasonably be expected to have a Material Adverse Effect or result in a Lien against any Collateral, except for Permitted Liens, (b) without limiting anything contained in the foregoing clause (a), (i) pay all amounts due and owing in respect of all federal Taxes (including without limitation, payroll and withholdings tax liabilities) and (ii) pay all material amounts due and owing in respect of all foreign and state Taxes and other local Taxes (including without limitation, payroll and withholdings tax liabilities), in each case, on a timely basis as and when due, and in any case prior to the date on which any fine, penalty, interest, late charge or loss may be added thereto for nonpayment thereof, in each case, except for such Taxes that may be the subject of a Permitted Contest; *provided* that for purposes of this Section 4.2(b)(ii) any tax assessment, deposit or contribution shall be considered "material" if it exceeds Five Hundred Thousand Dollars ($500,000), (c) will maintain, and cause each Subsidiary to maintain, in accordance with GAAP, appropriate reserves for the accrual of all of their respective obligations and liabilities, and (d) will not breach or permit any Subsidiary to breach, or permit to exist any default under, the terms of any lease, commitment, contract, instrument or obligation to which it is a party, or by which its properties or assets are bound, except for such breaches or defaults which could not reasonably be expected to have a Material Adverse Effect.

Section 4.3 Maintenance of Existence. Each Borrower will preserve, renew and keep in full force and effect and in good standing, and will cause each Subsidiary to preserve, renew and keep in full force and effect and in good standing, (a) their respective existence and (b) their respective rights, privileges and franchises necessary or desirable in the normal conduct of business, unless, solely in the case of this clause (b), a failure to do so could not reasonably be expected to have a Material Adverse Effect.

Section 4.4 Maintenance of Property; Insurance.

(a) Each Borrower will keep, and will cause each Subsidiary to keep, all property useful and necessary in its business in good working order and condition, ordinary wear and tear excepted. If all or any part of the Collateral useful or necessary in its business becomes damaged or destroyed, each Borrower will, and will cause each Subsidiary to, promptly and completely repair and/or restore the affected Collateral in a good and workmanlike manner, regardless of whether Agent agrees to disburse insurance proceeds or other sums to pay costs of the work of repair or reconstruction.

(b) Upon completion of any Permitted Contest, Borrowers shall, and will cause each Subsidiary to, promptly pay the amount due, if any, and deliver to Agent proof of the completion of the contest and payment of the amount due, if any.

(c) Each Borrower will maintain (i) casualty insurance on all real and personal property on an all risks basis (including the perils of flood, windstorm and quake), covering the repair and replacement cost of all such property and coverage, business interruption and rent loss coverages with extended period of indemnity (for the period required by Agent from time to time) and indemnity for extra expense, in each case without application of coinsurance and with agreed amount endorsements, (ii) general and professional liability insurance (including products/completed operations liability coverage), and (iii) such other insurance coverage, in each case against loss or damage of the kinds customarily insured against by Persons engaged in the same or similar business, of such types and in such amounts as are customarily carried under similar circumstances by such other Persons; *provided*, *however*, that, in no event shall such insurance be in amounts or with coverage less than, or with carriers with qualifications inferior to, any of the insurance or carriers in existence as of the Closing Date (or required to be in existence after the Closing Date under a Financing Document). All such insurance shall be provided by insurers having an A.M. Best policyholders rating reasonably acceptable to Agent.

(d) On or prior to the Closing Date, and at all times thereafter, each Borrower will cause Agent to be named as an additional insured, assignee and lender loss payee (which shall include, as applicable, identification as mortgagee), as applicable, on each insurance policy required to be maintained pursuant to this Section 4.4 pursuant to endorsements in form and substance reasonably acceptable to Agent. Borrowers shall deliver to Agent and the Lenders (i) on the Closing Date, a certificate from Borrowers' insurance broker dated such date showing the amount of coverage as of such date, and that such policies will include effective waivers (whether under the terms of any such policy or otherwise) by the insurer of all claims for insurance premiums against all loss payees and additional insureds and all rights of subrogation against all loss payees and additional insureds, and that if all or any part of such policy is canceled, terminated or expires, the insurer will forthwith give notice thereof to each additional insured, assignee and loss payee and that no cancellation, material reduction in amount or material change in coverage thereof shall be effective until at least thirty (30) days (or ten (10) days for nonpayment of premium) after receipt by each additional insured, assignee and loss payee of written notice thereof, (ii) on an annual basis, and upon the request of any Lender through Agent from time to time full information as to the insurance carried, (iii) within five (5) days of receipt of notice from any insurer, a copy of any notice of cancellation, nonrenewal or material change in coverage from that existing on the date of this Agreement, (iv) forthwith, notice of any cancellation or nonrenewal of coverage by any Borrower, and (v) at least thirty (30) days prior to expiration of any policy of insurance, evidence of renewal of such insurance upon the terms and conditions herein required.

(e) In the event any Borrower fails to provide Agent with evidence of the insurance coverage required by this Agreement, Agent may purchase insurance at Borrowers' expense to protect Agent's interests in the Collateral. This insurance may, but need not, protect such Borrower's interests. The coverage purchased by Agent may not pay any claim made by such Borrower or any claim that is made against such Borrower in connection with the Collateral. Such Borrower may later cancel any insurance purchased by Agent, but only after providing Agent with evidence that such Borrower has obtained insurance as required by this Agreement. If Agent purchases insurance for the Collateral, Borrowers will be responsible for the costs of that insurance to the fullest extent provided by law, including interest and other charges imposed by Agent in connection with the placement of the insurance, until the effective date of the cancellation or expiration of the insurance. The costs of the insurance may be added to the Obligations. The costs of the insurance may be more than the cost of insurance such Borrower is able to obtain on its own.

Section 4.5 Compliance with Laws and Material Contracts. Each Borrower will comply, and cause each Subsidiary to comply, with the requirements of all applicable Laws and Material Contracts, except to the extent that failure to so comply could not reasonably be expected to (a) have a Material Adverse Effect, or (b) result in any Lien upon a material portion of the assets of any such Person in favor of any Governmental Authority (other than any Permitted Lien).

Section 4.6 Inspection of Property, Books and Records. Each Borrower will keep, and will cause each Subsidiary to keep, proper books of record substantially in accordance with GAAP in which full, true and correct entries shall be made of all dealings and transactions in relation to its business and activities; and will permit, and will cause each Subsidiary to permit, during normal business hours at the sole cost of the applicable Borrower or any applicable Subsidiary, representatives of Agent to visit and inspect any of their respective properties, to examine and make abstracts or copies from any of their respective books and records, to conduct a collateral audit and analysis of their respective operations and the Collateral, to evaluate and make physical verifications and appraisals of the Inventory and other Collateral in any manner and through any medium that Agent considers advisable, to verify the amount and age of the Accounts, the identity and credit of the respective Account Debtors, to review the billing practices of Borrowers and to discuss their respective affairs, finances and accounts with their respective officers, employees and independent public accountants as often as may reasonably be desired. In the absence of a Default or an Event of Default which is continuing (i) such inspections and audits shall be conducted no more often than two (2) times every twelve (12) months, and (ii) Agent exercising any rights pursuant to this Section 4.6 shall give the applicable Borrower or any applicable Subsidiary commercially reasonable prior notice of such exercise. No notice shall be required during the existence and during the continuance of any Default or any time during which Agent reasonably believes a Default exists.

Section 4.7 Use of Proceeds. Borrowers shall use the proceeds of the Term Loan solely for (a) transaction fees incurred in connection with the Financing Documents and the payment in full on the Closing Date of certain existing Debt and (b) for working capital needs and for operating expenditures and capital expenditures of Borrowers and their Subsidiaries. No portion of the proceeds of the Loans will be used for family, personal, agricultural or household use.

Section 4.8 Reserved.

Section 4.9 Notices of Material Contracts, Litigation and Defaults.

(a) (i) Borrowers shall promptly (but in any event within five (5) Business Days) provide written notice to Agent after any Borrower or Subsidiary receives or delivers any notice of termination or default or similar notice in connection with any Material Contract, and (ii) Borrower shall provide, together with the next quarterly Compliance Certificate required to be delivered under this Agreement, written notice to Agent after any Borrower or Subsidiary (1) executes and delivers any material amendment, consent, waiver or other modification to any Material Contract or (2) enters into new Material Contract and shall, upon request of Agent, promptly provide Agent a copy thereof.

(b) Borrowers shall promptly (but in any event within five (5) Business Days) provide written notice to Agent (i) of any litigation or governmental proceedings pending or threatened (in writing) against Borrowers or other Credit Party which, if adversely determined, would reasonably be expected to have a Material Adverse Effect with respect to Borrowers or any other Credit Party or which in any manner calls into question the validity or enforceability of any Financing Document, (ii) upon any Responsible Officer becoming aware of the existence of any Default or Event of Default, (iii) of any strikes or other labor disputes pending or, to any Borrower's knowledge, threatened against any Credit Party, in each case that would reasonably be expected to result in a Material Adverse Effect, (iv) if there is any infringement or claim of infringement by any other Person with respect to any Intellectual Property rights of any Credit Party that could reasonably be expected to have a Material Adverse Effect, and (v) of all returns, recoveries, disputes and claims that would reasonably be expected to result in liability of more than Seven Hundred Fifty Thousand Dollars ($750,000). Borrowers represent and warrant that Schedule 4.9 sets forth a complete list of all material matters existing as of the Closing Date for which notice could be required under this Section 4.9.

(c) Borrower shall, and shall cause each Credit Party, to provide such further information (including copies of such documentation) as Agent or any Lender shall reasonably request with respect to any of the events or notices described in clauses (a) and (b) above and any notice given in respect of a Regulatory Reporting Event. From the date hereof and continuing through the termination of this Agreement, Borrower shall, and shall cause each Credit Party to, make available to Agent, without expense to Agent, each Credit Party's officers, employees and agents and books, to the extent that Agent may deem them reasonably necessary to prosecute or defend any third-party suit or proceeding instituted by or against Agent with respect to any Collateral or relating to a Credit Party.

Section 4.10 Hazardous Materials; Remediation.

(a) If any release or disposal of Hazardous Materials that could reasonably be expected to result in a Material Adverse Effect shall occur or shall have occurred on any real property or any other assets of any Borrower or any other Credit Party, such Borrower will cause, or direct the applicable Credit Party to cause, the prompt containment and removal of such Hazardous Materials and the remediation of such real property or other assets as is necessary to comply with all applicable Environmental Laws and Healthcare Laws and to preserve the value of such real property or other assets. Without limiting the generality of the foregoing, each Borrower shall, and shall cause each other Credit Party to, comply with each applicable Environmental Law and Healthcare Law requiring the performance at any real property by any Borrower or any other Credit Party of activities in response to the release or threatened release of a Hazardous Material.

(b) Borrowers will provide Agent within thirty (30) days after written demand therefor with a bond, letter of credit or similar financial assurance evidencing to the reasonable satisfaction of Agent that sufficient funds are available to pay the cost of removing, treating and disposing of any Hazardous Materials or Hazardous Materials Contamination and discharging any assessment which may be established on any property as a result thereof, such demand to be made, if at all, upon Agent's reasonable business determination that the failure to remove, treat or dispose of any Hazardous Materials or Hazardous Materials Contamination, or the failure to discharge any such assessment could reasonably be expected to have a Material Adverse Effect.

Section 4.11 Further Assurances.

(a) Each Borrower will, and will cause each Subsidiary to, at its own cost and expense, promptly and duly take, execute, acknowledge and deliver all such further acts, documents and assurances as may from time to time be necessary or as Agent or the Required Lenders may from time to time reasonably request in order to carry out the intent and purposes of the Financing Documents and the transactions contemplated thereby, including all such actions to (i) establish, create, preserve, protect and perfect a first priority Lien (subject only to Permitted Liens) in favor of Agent for itself and for the benefit of the Lenders on the Collateral (including Collateral acquired after the date hereof), and (ii) unless Agent shall agree otherwise in writing, cause all Subsidiaries of Borrowers (other than Restricted Foreign Subsidiaries) to be jointly and severally obligated with the other Borrowers under all covenants and obligations under this Agreement, including the obligation to repay the Obligations.

(b) Upon receipt of an affidavit of an authorized representative of Agent or a Lender as to the loss, theft, destruction or mutilation of any Note or any other Financing Document which is not of public record, and, in the case of any such mutilation, upon surrender and cancellation of such Note or other applicable Financing Document, Borrowers will issue, in lieu thereof, a replacement Note or other applicable Financing Document, dated the date of such lost, stolen, destroyed or mutilated Note or other Financing Document in the same principal amount thereof and otherwise of like tenor.

(c) Borrower shall provide Agent with at least fifteen (15) days (or such shorter period as Agent may accept in its sole discretion) prior written notice of the creation (or to the extent permitted under this Agreement, acquisition) of a new Subsidiary. Upon the formation (or to the extent permitted under this Agreement, acquisition) of a new Subsidiary, Borrowers shall (i) pledge, have pledged or cause or have caused to be pledged to Agent pursuant to a pledge agreement in form and substance satisfactory to Agent, all of the outstanding shares of Equity Interests or other Equity Interests of such new Subsidiary (other than any Equity Interests constituting Excluded Property) owned directly or indirectly by any Borrower, along with undated stock or equivalent powers for such certificates, executed in blank; (ii) unless Agent shall agree otherwise in writing, cause the new Subsidiary (other than a Restricted Foreign Subsidiary) to take such other actions (including entering into or joining any Security Documents) as are necessary or advisable in the reasonable opinion of Agent in order to grant Agent, acting on behalf of the Lenders, a first priority Lien (subject to Permitted Liens which have priority by operation of Law) on all real and personal property (other than Excluded Property) of such Subsidiary in existence as of such date and in all after acquired property, which first priority Liens are required to be granted pursuant to this Agreement; (iii) unless Agent shall agree otherwise in writing, cause such new Subsidiary (other than a Restricted Foreign Subsidiary) to either (at the election of Agent) become a Borrower hereunder with joint and several liability for all obligations of Borrowers hereunder and under the other Financing Documents pursuant to a joinder agreement or other similar agreement in form and substance satisfactory to Agent or to become a Guarantor of the obligations of Borrowers hereunder and under the other Financing Documents pursuant to a guaranty and suretyship agreement in form and substance satisfactory to Agent; and (iv) cause the new Subsidiary (other than a Restricted Foreign Subsidiary) to deliver certified copies of such Subsidiary's certificate or articles of incorporation, together with good standing certificates, by-laws (or other operating agreement or governing documents), resolutions of the Board of Directors or other governing body, approving and authorize the execution and delivery of the Security Documents, incumbency certificates and to execute and/or deliver such other documents and legal opinions or to take such other actions as may be requested by Agent, in each case, in form and substance satisfactory to Agent (the requirements set forth in clauses (i)-(iv), collectively, the "**Joinder Requirements**").

(d) Notwithstanding anything contained herein or in any other Financing Document to the contrary, in no event shall any foreign law governed security or other foreign law governed loan documents be delivered in connection with the Equity Interests issued by Akoya Biosciences UK Ltd.

Section 4.12 Reserved.

Section 4.13 Power of Attorney. Each of the authorized representatives of Agent is hereby irrevocably made, constituted and appointed the true and lawful attorney for Borrowers (without requiring any of them to act as such) with full power of substitution, exercisable only upon the occurrence and during the continuance of an Event of Default, to do the following: (a) endorse the name of Borrowers upon any and all checks, drafts, money orders, and other instruments for the payment of money that are payable to Borrowers and constitute collections on Borrowers' Accounts; (b) so long as Agent has provided not less than three (3) Business Days' prior written notice to Borrower to perform the same and Borrower has failed to take such action, execute in the name of Borrowers any schedules, assignments, instruments, documents, and statements that Borrowers are obligated to give Agent under this Agreement; (c) take any action Borrowers are required to take under this Agreement; (d) so long as Agent has provided not less than three (3) Business Days' prior written notice to Borrower to perform the same and Borrower has failed to take such action, do such other and further acts and deeds in the name of Borrowers that Agent may deem necessary or desirable to enforce any Account or other Collateral or perfect Agent's security interest or Lien in any Collateral; and (e) do such other and further acts and deeds in the name of Borrowers that Agent may deem necessary or desirable to enforce its rights with regard to any Account or other Collateral. This power of attorney shall be irrevocable and coupled with an interest.

Section 4.14 Reserved.

Section 4.15 Reserved.

Section 4.16 Intellectual Property and Licensing.

(a) Together with each Compliance Certificate required to be delivered pursuant to Section 4.1 with respect to the last month of a fiscal quarter to the extent (i) Borrower acquires and/or develops any new Registered Intellectual Property, (ii) Borrower enters into or becomes bound by any additional material in-bound license or sublicense agreement, any additional exclusive out-bound license or sublicense agreement or other material agreement with respect to rights in Intellectual Property (other than over-the-counter software, software that is commercially available to the public and open source licenses), or (iii) there occurs any other material change in Borrower's Registered Intellectual Property, material in-bound licenses or sublicenses or exclusive out-bound licenses or sublicenses from that listed on Schedule 3.19 together with such Compliance Certificate, deliver to Agent an updated Schedule 3.19 reflecting such updated information. With respect to any updates to Schedule 3.19 involving exclusive out-bound licenses or sublicenses, such licenses shall be consistent with the definitions of and limitations herein pertaining to Permitted Licenses.

(b) If Borrower obtains any Registered Intellectual Property (other than copyrights, mask works and related applications, which are addressed below), Borrower shall promptly (and in any event within fifteen (15) days of obtaining same) notify Agent and execute such documents and provide such other information (including, without limitation, copies of applications) and take such other actions as Agent shall request in its good faith business judgment to perfect and maintain a first priority perfected security interest in favor of Agent, for the ratable benefit of Lenders, in such Registered Intellectual Property.

(c) Borrower shall take such commercially reasonable steps as Agent reasonably requests to obtain the consent of, or waiver by, any person whose consent or waiver is necessary for (x) all material licenses or material agreements to be deemed "Collateral" and for Agent to have a security interest in it that might otherwise be restricted or prohibited by Law or by the terms of any such material license or agreement, whether now existing or entered into in the future, and (y) Agent to have the ability in the event of a liquidation of any Collateral to dispose of such Collateral in accordance with Agent's rights and remedies under this Agreement and the other Financing Documents.

(d) Borrower shall own, or be licensed to use or otherwise have the right to use, all Material Intangible Assets subject to Permitted Liens. Borrower shall cause all Registered Intellectual Property to be duly and properly registered, filed or issued in the appropriate office and jurisdictions for such registrations, filings or issuances, except where the failure to do so would not reasonably be expected to result in a Material Adverse Effect. Borrower shall at all times conduct its business without material infringement or material claim of infringement of any valid Intellectual Property rights of others. Borrower shall (i) protect, defend and maintain the validity and enforceability of its Material Intangible Assets (ii) promptly advise Agent in writing of material infringements of its Material Intangible Assets, or of a material claim of infringement by Borrower on the Intellectual Property rights of others; and (iii) not allow any of Borrower's Material Intangible Assets to be abandoned, invalidated, forfeited or dedicated to the public or to become unenforceable. Borrower shall not become a party to, nor become bound by, any material license or other agreement with respect to which Borrower is the licensee (other than in-bound licenses of over-the-counter software and other software that is commercially available to the public, and open source licenses) that prohibits or otherwise restricts Borrower from granting a security interest in Borrower's interest in such license or agreement or other property.

Section 4.17 Regulatory Covenants

(a) Borrowers shall have, and shall ensure that it and each of its Subsidiaries has, each necessary Permit and other material rights from, and have made all necessary declarations and filings with, all applicable Governmental Authorities, all self-regulatory authorities and all courts and other tribunals necessary to engage in all material respects in the ownership, management and operation of the business or the assets of any Borrower and Borrowers shall take such reasonable actions to ensure that no Governmental Authority has taken action to limit, suspend or revoke any such Permit. Borrowers shall ensure that all such necessary Permits are valid and in full force and effect and Borrowers are in material compliance with the terms and conditions of all such Permits.

(b) [Reserved].

(c) In connection with the development, testing, manufacture, marketing or sale of each and any material Product by any Borrower, each Borrower shall have obtained and comply in all material respects with all material Regulatory Required Permits at all times issued or required to be issued by any Governmental Authority, specifically including the FDA, with respect to such development, testing, manufacture, marketing or sales of such Product by such Borrower as such activities are at any such time being conducted by such Borrower.

(d) Borrowers will timely file or caused to be timely filed (after giving effect to any extension duly obtained), all material notifications, reports, submissions, material Permit renewals and reports required by applicable Healthcare Laws (which reports will be materially accurate and complete in all material respects and not misleading in any material respect).

ARTICLE 5 - NEGATIVE COVENANTS

Each Borrower agrees that:

Section 5.1 Debt; Contingent Obligations.

(a) No Borrower will, or will permit any Subsidiary to, directly or indirectly, create, incur, assume, guarantee or otherwise become or remain directly or indirectly liable with respect to, any Debt, except for Permitted Debt.

(b) No Borrower will, or will permit any Subsidiary to, directly or indirectly, create, assume, incur or suffer to exist any Contingent Obligations, except for Permitted Contingent Obligations.

(c) No Borrower will, or will permit any Subsidiary to, directly or indirectly, purchase, redeem, defease or prepay any principal of, premium, if any, interest or other amount payable in respect of any Debt prior to its scheduled maturity (except (i) with respect to the Debt permitted under this Agreement, (ii) for Capital Lease obligations and (iii) for Subordinated Debt solely to the extent permitted by Section 5.5).

Section 5.2 Liens. No Borrower will, or will permit any Subsidiary to, directly or indirectly, create, assume or suffer to exist any Lien on any asset now owned or hereafter acquired by it, except for Permitted Liens.

Section 5.3 Distributions. No Borrower will, or will permit any Subsidiary to, directly or indirectly, declare, order, pay, make or set apart any sum for any Distribution, except for Permitted Distributions.

Section 5.4 Restrictive Agreements. No Borrower will, or will permit any Subsidiary to, directly or indirectly (a) enter into or assume any agreement (other than the Financing Documents, and any agreements for purchase money debt and capital leases permitted under clause (c) of the definition of Permitted Debt) prohibiting the creation or assumption of any Lien upon its properties or assets, whether now owned or hereafter acquired, or (b) create or otherwise cause or suffer to exist or become effective any consensual encumbrance or restriction of any kind (except as provided by the Financing Documents) on the ability of any Subsidiary to: (i) pay or make Distributions to any Borrower or any Subsidiary; (ii) pay any Debt owed to any Borrower or any Subsidiary; (iii) make loans or advances to any Borrower or any Subsidiary; or (iv) transfer any of its property or assets to any Borrower or any Subsidiary, in each case under this Section 5.4 other than reasonable and customary anti-assignment provisions contained in licenses, contracts and other agreements so long as such anti-assignment provisions do not cause such licenses, contracts or other agreements to constitute Excluded Property.

Section 5.5 Payments and Modifications of Subordinated Debt. No Borrower will, or will permit any Subsidiary to, directly or indirectly:

(a) declare, pay, make or set aside any amount for payment in respect of Subordinated Debt, except for payments made in full compliance with and expressly permitted under the Subordination Agreement;

(b) amend or otherwise modify the terms of any Subordinated Debt, except for amendments or modifications made in full compliance with the Subordination Agreement;

(c) declare, pay, make or set aside any amount for payment in respect of any Debt hereinafter incurred that, by its terms, or by separate agreement, is subordinated to the Obligations, except for payments made in full compliance with and expressly permitted under the subordination provisions applicable thereto; or

(d) amend or otherwise modify the terms of any such Debt if the effect of such amendment or modification is to (i) increase the interest rate or fees on, or change the manner or timing of payment of, such Debt, (ii) accelerate or shorten the dates upon which payments of principal or interest are due on, or the principal amount of, such Debt, (iii) change in a manner adverse to any Credit Party or Agent any event of default or add or make more restrictive any covenant with respect to such Debt, (iv) change the prepayment or redemption provisions of such Debt or any of the defined terms related thereto,(v) change the subordination provisions thereof (or the subordination terms of any guaranty thereof), or (vi) change or amend any other term if such change or amendment would materially increase the obligations of the obligor or confer additional material rights on the holder of such Debt in a manner adverse to Borrowers, any Subsidiaries, Agent or Lenders.

Section 5.6 Consolidations, Mergers and Sales of Assets;. No Borrower will, or will permit any Subsidiary to, directly or indirectly:

(a) consolidate or merge or amalgamate with or into any other Person other than (i) consolidations or mergers among Borrowers so long as (x) in any consolidation or merger involving Akoya Biosciences, Inc., Akoya Biosciences, Inc. is the surviving entity and (y) in any consolidation or merger involving a Borrower, a Borrower is the surviving entity, (ii) consolidations or mergers among a Guarantor and a Borrower so long as the Borrower is the surviving entity, (iii) consolidations or mergers among Guarantors, and (iv) consolidations or mergers among Subsidiaries that are not Credit Parties; or

(b) make or consummate any Asset Dispositions other than Permitted Asset Dispositions.

Section 5.7 Purchase of Assets, Investments. No Borrower will, or will permit any Subsidiary to, directly or indirectly:

(a) acquire, make, own, hold or otherwise consummate any Investment (including for the avoidance of doubt, any Acquisition) other than Permitted Investments or enter into any agreement to acquire, make, own or hold any Investment other than Permitted Investments,

(b) without limiting clause (a) above, acquire any other assets other than Permitted Investments or otherwise (i) in the Ordinary Course of Business, (ii) constituting capital expenditures, (iii) constituting replacement assets purchased with proceeds of property insurance policies, awards or other compensation with respect to any eminent domain, condemnation or similar proceeding and for which the requirements set forth in this Agreement have been satisfied and (iv) any acquisition by a Credit Party of assets of any other Credit Party to the extent not otherwise prohibited by Article 5 of this Agreement;

(c) engage or enter into any agreement to engage in any joint venture or partnership with any other Person except for Investments made pursuant to clause (l) of the definition of Permitted Investments.

(d) Without limiting the foregoing, no Borrower shall, nor will any Borrower permit any Subsidiary to, purchase or carry Margin Stock.

Section 5.8 Transactions with Affiliates. No Borrower will, or will permit any Subsidiary to, directly or indirectly, enter into or permit to exist any transaction (including the purchase, sale, lease or exchange of any property or the rendering of any service) with any Affiliate of any Borrower or any Subsidiary thereof, except for (a) transaction disclosed on Schedule 5.8 on the Closing Date, (b) transactions that are in the Ordinary Course of Business upon fair and reasonable terms, and, in each case, which contain terms that are no less favorable to the applicable Borrower or any Subsidiary, as the case may be, than those which might be obtained from a third party not an Affiliate of any Credit Party, (c) transactions among Credit Parties and Subsidiaries that are not otherwise prohibited by this Agreement, (d) transactions constituting (i) issuances of Subordinated Debt to investors and (ii) issuance of other equity securities, in each case, not otherwise in contravention of this Agreement; and (e) reasonable and customary director, officer and employee compensation (including bonuses) and other benefits (including retirement, health, stock option and other benefit plans and indemnification arrangements approved by the relevant board of directors, board managers or equivalent corporate body in the Ordinary Course of Business).

Section 5.9 Modification of Organizational Documents. No Borrower will, or will permit any Subsidiary to, directly or indirectly, amend or otherwise modify any Organizational Documents of such Person, except for Permitted Modifications.

Section 5.10 Modification of Certain Agreements. No Borrower will, or will permit any Subsidiary to, directly or indirectly, amend or otherwise modify any Material Contract, which amendment or modification in any case: (i) is contrary to the terms of this Agreement or any other Financing Document; (ii) would reasonably be expected to be adverse to the rights, interests or privileges of Agent or the Lenders or their ability to enforce the same; (iii) results in the imposition or expansion in any material respect of any obligation of or restriction or burden on any Credit Party or any Subsidiary; or (iv) reduces in any material respect any rights or benefits of any Credit Party or any Subsidiaries (it being understood and agreed that any such determination shall be in the discretion of Agent).

Section 5.11 Conduct of Business. No Borrower will, or will permit any Subsidiary to, directly or indirectly, engage in any line of business other than those businesses engaged in on the Closing Date and businesses reasonably related or incidental thereto. No Borrower will, or will permit any Subsidiary to, other than in the Ordinary Course of Business, change its normal billing payment and reimbursement policies and procedures with respect to its Accounts (including, without limitation, the amount and timing of finance charges, fees and write-offs).

Section 5.12 Reserved.

Section 5.13 Limitation on Sale and Leaseback Transactions. No Borrower will, or will permit any Subsidiary to, directly or indirectly, enter into any arrangement with any Person whereby, in a substantially contemporaneous transaction, any Borrower or any Subsidiaries sells or transfers all or substantially all of its right, title and interest in an asset and, in connection therewith, acquires or leases back the right to use such asset.

Section 5.14 Deposit Accounts and Securities Accounts; Payroll and Benefits Accounts.

(a) No Borrower will, or will permit any Credit Party to, directly or indirectly, establish any new Deposit Account or Securities Account unless such Borrower or such other Credit Party and the bank, financial institution or securities intermediary at which the account is to be opened enter into a Deposit Account Control Agreement or Securities Account Control Agreement prior to or concurrently with the establishment of such Deposit Account or Securities Account.

(b) Borrowers represent and warrant that Schedule 5.14 (as updated by the Compliance Certificates delivered to Agent from time to time after the Closing Date) lists all of the Deposit Accounts and Securities Accounts of each Borrower as of the Closing Date and as of the date on which each Compliance Certificate is delivered. The provisions of this Section requiring Deposit Account Control Agreements shall not apply to (i) Deposit Accounts exclusively used for payroll, payroll taxes and other employee wage and benefit payments to or for the benefit of Borrowers' employees and identified to Agent by Borrowers as such; *provided*, *however*, that the aggregate balance in such accounts does not exceed the amount necessary to make the two immediately succeeding payroll, payroll tax or benefit payments (or such minimum amount as may be required by any requirement of Law with respect to such accounts), (ii) escrow accounts and trust accounts, in each case entered into in the Ordinary Course of Business and consistent with prudent business practice conduct where the applicable Credit Party holds the funds exclusively for the benefit of one or more unaffiliated third parties in an aggregate amount not to exceed $500,000 with respect to all such escrow accounts and trust accounts, (iii) Deposit Accounts or Securities constituting Credit Card Cash Collateral Accounts or L/C Cash Collateral Accounts, and (iv) Deposit Accounts or Securities Accounts holding cash or Cash Equivalents described in clause (q) of the definition Permitted Liens (the accounts referenced in clauses (i)-(iv), the "**Excluded Accounts**").

(c) If, as of the close of business on any day, Borrowers have Borrower Unrestricted Cash in an amount less than $10,000,000 (a "**Payroll Account Trigger Event**"), then Borrowers shall promptly (but in any event within 15 days of the occurrence of the Payroll Account Trigger Event) establish, and at all times thereafter maintain, one or more separate Deposit Accounts to hold any and all amounts to be used for payroll, payroll taxes and other employee wage and benefit payments, and shall not commingle any monies allocated for such purposes with funds in any other Deposit Account.

Section 5.15 Compliance with Anti-Terrorism Laws. Agent hereby notifies Borrowers that pursuant to the requirements of Anti-Terrorism Laws, and Agent's policies and practices, Agent is required to obtain, verify and record certain information and documentation that identifies Borrowers and its principals, which information includes the name and address of each Borrower and its principals and such other information that will allow Agent to identify such party in accordance with Anti-Terrorism Laws. No Borrower will, or will permit any Subsidiary to, directly or indirectly, knowingly enter into any Material Contracts with any Blocked Person or any Person listed on the OFAC Lists. Each Borrower shall immediately notify Agent if such Borrower has knowledge that any Borrower, any additional Credit Party or any of their respective Affiliates or agents acting or benefiting in any capacity in connection with the transactions contemplated by this Agreement is or becomes a Blocked Person or (a) is convicted on, (b) pleads nolo contendere to, (c) is indicted on, or (d) is arraigned and held over on charges involving money laundering or predicate crimes to money laundering. No Borrower will, or will permit any Subsidiary to, directly or indirectly, (i) conduct any business or engage in any transaction or dealing with any Blocked Person, including, without limitation, the making or receiving of any contribution of funds, goods or services to or for the benefit of any Blocked Person, (ii) deal in, or otherwise engage in any transaction relating to, any property or interests in property blocked pursuant to Executive Order No. 13224, any similar executive order or other Anti-Terrorism Law, or (iii) engage in or conspire to engage in any transaction that evades or avoids, or has the purpose of evading or avoiding, or attempts to violate, any of the prohibitions set forth in Executive Order No. 13224 or other Anti-Terrorism Law.

Section 5.16 Change in Accounting. No Borrower shall, and no Borrower shall suffer or permit any of its Subsidiaries to, (a) make any significant change in accounting treatment or reporting practices, except as required by GAAP or (b) change the fiscal year or method for determining fiscal quarters of any Credit Party or of any consolidated Subsidiary of any Credit Party.

Section 5.17 Investment Company Act. No Borrower shall, nor shall it permit any Subsidiary to, directly or indirectly, engage in any business, enter into any transaction, use any securities or take any other action or permit any of its Subsidiaries to do any of the foregoing, that would cause it or any of its Subsidiaries to become subject to the registration requirements of the Investment Company Act, by virtue of being an "investment company" or a company "controlled" by an "investment company" not entitled to an exemption within the meaning of the Investment Company Act.

Section 5.18 Restricted Foreign Subsidiaries.

(a) Borrower shall not permit, at any time, the aggregate amount of cash and Cash Equivalents held by all Restricted Foreign Subsidiaries to exceed $500,000 (or the equivalent thereof in any foreign currency), in the aggregate.

(b) No Restricted Foreign Subsidiary shall own, or have an exclusive license in respect of, any Material Intangible Assets (including any source code).

(c) No Credit Party shall transfer any asset (including any Intellectual Property) to or make any Investment in any Restricted Foreign Subsidiary other than Investments of cash and Cash Equivalents permitted to be made pursuant to clause (j) of the definition of "Permitted Investment".

(d) No Borrower will, or will permit any Subsidiary, to commingle any of its assets (including any bank accounts, cash or Cash Equivalents) with the assets of any Person other than a Credit Party.

(e) Following the occurrence and continuation of an Event of Default, Borrower shall promptly upon Agent's request (but in any event within five (5) Business Days thereof) cause each Restricted Foreign Subsidiary to declare and pay to Borrower the maximum amount of dividends and other distributions in respect of its capital stock or other equity interest legally permitted to be paid by each such Restricted Foreign Subsidiary; *provided* that such Restricted Foreign Subsidiary shall be able to retain for working capital purposes such amounts used by such Restricted Foreign Subsidiaries in the Ordinary Course of Business and as are reasonably necessary for its current operations based on its current projections, as provided to Agent pursuant to Section 4.1.

ARTICLE 6 - FINANCIAL COVENANTS

Section 6.1 Minimum Net Revenue. Borrowers shall not permit its consolidated Net Revenue for any applicable Defined Period, as tested monthly on the last day of the applicable Defined Period, to be less than the Minimum Net Revenue Threshold for such Defined Period.

Section 6.2 Evidence of Compliance. Borrowers shall furnish to Agent, as required by Section 4.1, a Compliance Certificate as evidence of (a) the monthly cash and Cash Equivalents of Borrowers and Borrowers and their Consolidated Subsidiaries, (b) Borrowers' compliance with the covenants in this Article, and (c) that no Event of Default specified in this Article has occurred. The Compliance Certificate shall include, without limitation, (x) a statement and report, in form and substance reasonably satisfactory to Agent, detailing Borrowers' calculations, and (y) if requested by Agent, backup documentation (including, without limitation, bank statements, invoices, receipts and other evidence of costs incurred during such quarter as Agent shall reasonably require) evidencing the propriety of the calculations.

ARTICLE 7 - CONDITIONS

Section 7.1 Conditions to Closing. The obligation of each Lender to make the initial Loans on the Closing Date shall be subject to the receipt by Agent of each agreement, document and instrument set forth on the closing checklist attached hereto as Exhibit F, each in form and substance satisfactory to Agent, and such other closing deliverables reasonably requested by Agent and Lenders, and to the satisfaction of the following conditions precedent, each to the satisfaction of Agent and Lenders in their reasonable discretion:

(a) the payment of all fees, expenses and other amounts due and payable under each Financing Document; and

(b) since December 31, 2019, the absence of any material adverse change in any aspect of the business, operations, properties, or condition (financial or otherwise) of any Credit Party, or any event or condition which would reasonably be expected to result in such a material adverse change.

Each Lender, by delivering its signature page to this Agreement, shall be deemed to have acknowledged receipt of, and consented to and approved, each Financing Document and each other document, agreement and/or instrument required to be approved by Agent, Required Lenders or Lenders, as applicable, on the Closing Date.

Section 7.2 Conditions to Each Loan. The obligation of the Lenders to make a Loan or an advance in respect of any Loan (including the initial Loans), is subject to the satisfaction of the following additional conditions:

(a) receipt by Agent of a Notice of Borrowing in accordance with Section 2.1(a)(i);

(b) the fact that, immediately before and after such advance or issuance, no Default or Event of Default shall have occurred and be continuing;

(c) for Loans made on the Closing Date, the fact that the representations and warranties of each Credit Party contained in the Financing Documents shall be true, correct and complete on and as of the Closing Date, except to the extent that any such representation or warranty relates to a specific date in which case such representation or warranty shall be true and correct as of such earlier date;

(d) for Loans made after the Closing Date, the fact that the representations and warranties of each Credit Party contained in the Financing Documents shall be true, correct and complete in all material respects on and as of the date of such borrowing or issuance, except to the extent that any such representation or warranty relates to a specific earlier date in which case such representation or warranty shall be true and correct in all material respects as of such specific earlier date; *provided*, *however*, in each case, such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof;

(e) with respect to Term Loan Tranche 2 Loans, the Term Loan Tranche 2 Activation Date has occurred;

(f) with respect to Term Loan Tranche 2 Loans, the most recent Compliance Certificate delivered (or required to be delivered) by Borrower pursuant to Section 4.1(i) prior to the proposed funding date for Term Loan Tranche 2 Loans demonstrates to Agent's and each Lender's satisfaction that Borrower is in compliance with the financial covenant set forth in Section 6.1 as of the most recently ended Defined Period; and

(g) the fact that no adverse change in the condition (financial or otherwise), properties, business, or operations of Borrowers or any other Credit Party shall have occurred and be continuing with respect to Borrowers or any Credit Party since the date of this Agreement.

Each giving of a Notice of Borrowing hereunder and each acceptance by any Borrower of the proceeds of any Loan made hereunder shall be deemed to be (y) a representation and warranty by each Borrower on the date of such notice or acceptance as to the facts specified in this Section, and (z) a restatement by each Borrower that each and every one of the representations made by it in any of the Financing Documents is true and correct as of such date (except to the extent that such representations and warranties expressly relate solely to an earlier date).

Section 7.3 Searches. Before the Closing Date, and thereafter (as and when determined by Agent in its discretion), Agent shall have the right to perform, all at Borrowers' expense, the searches described in clauses (a), (b), and (c) below against Borrowers and any other Credit Party, the results of which are to be consistent with Borrowers' representations and warranties under this Agreement and the satisfactory results of which shall be a condition precedent to all advances of Loan proceeds: (a) UCC searches with the Secretary of State of the jurisdiction in which the applicable Person is organized; (b) judgment, pending litigation, federal tax lien, personal property tax lien, and corporate and partnership tax lien searches, in each jurisdiction searched under clause (a) above; and (c) searches of applicable corporate, limited liability company, partnership and related records to confirm the continued existence, organization and good standing of the applicable Person and the exact legal name under which such Person is organized. Notwithstanding anything to the contrary herein, after the Closing Date, Borrowers shall not be liable for the expenses associated with such searches conducted more than once during each twelve month period unless an Event of Default has occurred and is continuing.

Section 7.4 Post-Closing Requirements. Unless Agent shall otherwise consent, Borrowers shall complete each of the post-closing obligations and/or provide to Agent each of the documents, instruments, agreements and information listed on Schedule 7.4 attached hereto on or before the date set forth for each such item thereon, each of which shall be completed or provided in form and substance reasonably satisfactory to Agent.

ARTICLE 8 - [RESERVED]

ARTICLE 9 - SECURITY AGREEMENT

Section 9.1 Generally. As security for the payment and performance of the Obligations, and without limiting any other grant of a Lien and security interest in any Security Document, each Borrower hereby assigns, grants and pledges to Agent, for the benefit of itself and Lenders a continuing first priority Lien on and security interest in, upon, and to the property set forth on Schedule 9.1 attached hereto and made a part hereof.

Section 9.2 Representations and Warranties and Covenants Relating to Collateral.

(a) The security interest granted pursuant to this Agreement constitutes a valid and, to the extent such security interest is required to be perfected by this Agreement and any other Financing Document, continuing perfected security interest in favor of Agent in all Collateral subject, for the following Collateral, to the occurrence of the following: (i) in the case of all Collateral in which a security interest may be perfected by filing a financing statement under the UCC, the completion of the filings and other actions specified on Schedule 9.2(b) (which, in the case of all filings and other documents referred to on such schedule, have been delivered to Agent in completed and duly authorized form), (ii) with respect to any Deposit Account, the execution of Deposit Account Control Agreements, (iii) in the case of letter-of-credit rights that are not supporting obligations of Collateral, the execution of a contractual obligation granting control to Agent over such letter-of-credit rights, (iv) in the case of electronic chattel paper, the completion of all steps necessary to grant control to Agent over such electronic chattel paper, (v) in the case of all certificated stock, debt instruments and investment property, the delivery thereof to Agent of such certificated stock, debt instruments and investment property consisting of instruments and certificates, in each case properly endorsed for transfer to Agent or in blank, (vi) in the case of all investment property not in certificated form, the execution of control agreements with respect to such investment property and (vii) in the case of all other instruments and tangible chattel paper that are not certificated stock, debt instructions or investment property, the delivery thereof to Agent of such instruments and tangible chattel paper. Such security interest shall be prior to all other Liens on the Collateral except for Permitted Liens. Except to the extent not required pursuant to the terms of this Agreement, all actions by each Credit Party necessary or desirable to protect and perfect the Lien granted hereunder on the Collateral have been duly taken.

(b) Schedule 9.2(b) (as updated by the Compliance Certificates delivered to Agent from time to time after the Closing Date) sets forth (i) each chief executive office and principal place of business of each Borrower and each of their respective Subsidiaries, and (ii) all of the addresses (including all warehouses) at which any of the Collateral is located and/or books and records of Borrowers regarding any Collateral or any of Borrower's assets, liabilities, business operations or financial condition are kept, which such Schedule 9.2(b) indicates in each case which Borrower(s) have Collateral and/or books and records located at such address, and, in the case of any such address not owned by one or more of the Borrowers(s), indicates the nature of such location (e.g., leased business location operated by Borrower(s), third party warehouse, consignment location, processor location, etc.) and the name and address of the third party owning and/or operating such location.

(c) Without limiting the generality of Section 3.2, except as indicated on Schedule 3.19 with respect to any rights of any Borrower as a licensee under any license of Intellectual Property owned by another Person, and except for the filing of financing statements under the UCC, no authorization, approval or other action by, and no notice to or filing with, any Governmental Authority or consent of any other Person is required for (i) the grant by each Borrower to Agent of the security interests and Liens in the Collateral provided for under this Agreement and the other Security Documents (if any), or (ii) the granting of the security interest or the exercise by Agent of its rights and remedies with respect to the Collateral provided for under this Agreement and the other Security Documents or under any applicable Law, including the UCC and neither any such grant of Liens in favor of Agent or exercise of rights by Agent shall violate or cause a default under any agreement between any Borrower and any other Person relating to any such collateral, including any license to which a Borrower is a party, whether as licensor or licensee, with respect to any Intellectual Property, whether owned by such Borrower or any other Person.

(d) As of the Closing Date, except as set forth on Schedule 9.2(d), no Borrower has any ownership interest in any Chattel Paper (as defined in Article 9 of the UCC), letter of credit rights, commercial tort claims, Instruments, documents or investment property evidencing an obligation in excess of Two Hundred Fifty Thousand Dollars ($200,000) individually or in excess of Five Hundred Thousand Dollars ($500,000) in the aggregate for all such obligations (other than equity interests in any Subsidiaries of such Borrower disclosed on Schedule 3.4), and Borrowers shall give notice to Agent promptly (but in any event not later than the delivery by Borrowers of the next quarterly Compliance Certificate required pursuant to Section 4.1 above) upon the acquisition by any Borrower of any such Chattel Paper, letter of credit rights, commercial tort claims, Instruments, documents, investment property evidencing an obligation in excess of Two Hundred Fifty Thousand Dollars ($200,000) individually or in excess of Five Hundred Thousand Dollars ($500,000) in the aggregate for all such obligations. No Person other than Agent or (if applicable) any Lender has "control" (as defined in Article 9 of the UCC) over any Deposit Account, investment property (including Securities Accounts and commodities account), letter of credit rights or electronic chattel paper in which any Borrower has any interest (except for such control arising by operation of law in favor of any bank or securities intermediary or commodities intermediary with whom any Deposit Account, Securities Account or commodities account of Borrowers is maintained).

(e) Borrowers shall not, and shall not permit any Credit Party to, take any of the following actions or make any of the following changes unless Borrowers have given at least thirty (30) days prior written notice to Agent of Borrowers' intention to take any such action (which such written notice shall include an updated version of any Schedule impacted by such change) and have executed any and all documents, instruments and agreements and taken any other actions which Agent may request after receiving such written notice in order to protect and preserve the Liens, rights and remedies of Agent with respect to the Collateral: (i) change the legal name or organizational identification number of any Borrower as it appears in official filings in the jurisdiction of its organization, (ii) change the jurisdiction of incorporation or formation of any Borrower or Credit Party or allow any Borrower or Credit Party to designate any jurisdiction as an additional jurisdiction of incorporation for such Borrower or Credit Party, or change the type of entity that it is; *provided* that in no event shall a Borrower organized under the laws of the United States or any state thereof be reorganized under the laws of a jurisdiction other than the United States or any State thereof, or (iii) change its chief executive office, principal place of business, or the location of its books and records or move any Collateral to or place any Collateral on any location that is not then listed on the Schedules and/or establish any business location at any location that is not then listed on the Schedules.

(f) Borrowers shall not adjust, settle or compromise the amount or payment of any Account, or release wholly or partly any Account Debtor, or allow any credit or discount thereon (other than adjustments, settlements, compromises, credits and discounts in the Ordinary Course of Business, made while no Default exists and in amounts which constitute less than $250,000 reduction per individual account and are otherwise not material with respect to the Account taken as a whole) without the prior written consent of Agent. Without limiting the generality of this Agreement or any other provisions of any of the Financing Documents relating to the rights of Agent after the occurrence and during the continuance of an Event of Default, Agent shall have the right at any time after the occurrence and during the continuance of an Event of Default to: (i) exercise the rights of Borrowers with respect to the obligation of any Account Debtor to make payment or otherwise render performance to Borrowers and with respect to any property that secures the obligations of any Account Debtor or any other Person obligated on the Collateral, and (ii) adjust, settle or compromise the amount or payment of such Accounts.

(g) Without limiting the generality of Sections 9.2(c) and 9.2(e):

(i) Borrowers shall deliver to Agent all tangible Chattel Paper and all Instruments and documents evidencing an obligation in excess of Two Hundred Fifty Thousand Dollars ($200,000) individually or in excess of Five Hundred Thousand Dollars ($500,000) in the aggregate for all such obligations owned by any Borrower and constituting part of the Collateral duly endorsed and accompanied by duly executed instruments of transfer or assignment, all in form and substance satisfactory to Agent. Borrowers shall provide Agent with "control" (as defined in Article 9 of the UCC) of all electronic Chattel Paper evidencing an obligation in excess of Two Hundred Fifty Thousand Dollars ($200,000) individually or in excess of Five Hundred Thousand Dollars ($500,000) in the aggregate for all such obligations owned by any Borrower and constituting part of the Collateral by having Agent identified as the assignee on the records pertaining to the single authoritative copy thereof and otherwise complying with the applicable elements of control set forth in the UCC. Borrowers also shall deliver to Agent all security agreements securing any such Chattel Paper and securing any such Instruments (other than those with a value of less than One Hundred Thousand Dollars ($100,000) in the aggregate). Borrowers will mark conspicuously all such Chattel Paper and all such Instruments and documents (other than those with a value of less than One Hundred Thousand Dollars ($100,000) in the aggregate) with a legend, in form and substance satisfactory to Agent, indicating that such Chattel Paper and such instruments and documents are subject to the security interests and Liens in favor of Agent created pursuant to this Agreement and the Security Documents. Borrowers shall comply with all the provisions of Section 5.14 with respect to the Deposit Accounts and Securities Accounts of Borrowers.

(ii) Borrowers shall deliver to Agent all letters of credit with a face amount in excess of Two Hundred Fifty Thousand Dollars ($200,000) individually or in excess of Five Hundred Thousand Dollars ($500,000) in the aggregate for all letters of credit on which any Borrower is the beneficiary and which give rise to letter of credit rights owned by such Borrower which constitute part of the Collateral in each case duly endorsed and accompanied by duly executed instruments of transfer or assignment, all in form and substance satisfactory to Agent. Borrowers shall take any and all actions as may be necessary or desirable, or that Agent may request, from time to time, to cause Agent to obtain exclusive "control" (as defined in Article 9 of the UCC) of any such letter of credit rights in a manner acceptable to Agent.

(iii) Borrowers shall promptly advise Agent upon any Borrower becoming aware that it has any interests in any commercial tort claim that is for at least, or could reasonably be expected to result in a payment in excess of, Two Hundred Fifty Thousand Dollars ($200,000) individually or in excess of Five Hundred Thousand Dollars ($500,000) in the aggregate for all commercial tort claims and that constitutes part of the Collateral, which such notice shall include descriptions of the events and circumstances giving rise to such commercial tort claim and the dates such events and circumstances occurred, the potential defendants with respect such commercial tort claim and any court proceedings that have been instituted with respect to such commercial tort claims, and Borrowers shall, with respect to any such commercial tort claim, execute and deliver to Agent such documents as Agent shall request to perfect, preserve or protect the Liens, rights and remedies of Agent with respect to any such commercial tort claim.

(iv) Unless Agent shall otherwise consent, Borrowers shall obtain a landlord's agreement, mortgagee agreement, or bailee agreement, as applicable, from the lessor of each leased property, the mortgagee of owned property or the warehouseman, consignee, bailee at any business location, in each case, located in the United States and (a) which is a Borrower's chief executive office or (b) where any portion of the Collateral with a value in excess of $500,000, is located, in each case, which agreement or letter shall be reasonably satisfactory in form and substance to Agent. Borrowers shall timely and fully pay and perform its obligations under all leases and other agreements with respect to each of the locations specified in the preceding sentence. In no event shall Borrower maintain tangible Collateral (other than Inventory with contract manufacturers and Inventory in transit in the Ordinary Course of Business) with a value in excess of $500,000 outside of the United States without Agent's prior consent.

(v) Borrowers shall cause all equipment and other tangible personal property other than Inventory to be maintained and preserved in the same condition, repair and in working order as when new, ordinary wear and tear excepted, and shall promptly make or cause to be made all repairs, replacements and other improvements in connection therewith that are necessary or desirable to such end. Upon request of Agent, Borrowers shall promptly deliver to Agent any and all certificates of title, applications for title or similar evidence of ownership of all such tangible personal property and shall cause Agent to be named as lienholder on any such certificate of title or other evidence of ownership. Borrowers shall not permit any such tangible personal property to become fixtures to real estate unless such real estate is subject to a Lien in favor of Agent.

(vi) Each Borrower hereby authorizes Agent to file without the signature of such Borrower one or more UCC financing statements relating to liens on personal property relating to all or any part of the Collateral, which financing statements may list Agent as the "secured party" and such Borrower as the "debtor" and which describe and indicate the collateral covered thereby as all or any part of the Collateral under the Financing Documents (including an indication of the collateral covered by any such financing statement as "all assets" of such Borrower now owned or hereafter acquired), in such jurisdictions as Agent from time to time determines are appropriate, and to file without the signature of such Borrower any continuations of or corrective amendments to any such financing statements, in any such case in order for Agent to perfect, preserve or protect the Liens, rights and remedies of Agent with respect to the Collateral. Each Borrower also ratifies its authorization for Agent to have filed in any jurisdiction any initial financing statements or amendments thereto if filed prior to the date hereof.

(vii) As of the Closing Date, no Borrower holds, and, after the Closing Date, Borrowers shall promptly notify Agent in writing upon creation or acquisition by any Borrower of, any Collateral in excess of Five Hundred Thousand Dollars ($500,000) in the aggregate for all such Collateral which constitutes a claim against any Governmental Authority, including, without limitation, the federal government of the United States or any instrumentality or agency thereof, the assignment of which claim is restricted by any applicable Law, including, without limitation, the federal Assignment of Claims Act and any other comparable Law. Upon the request of Agent, Borrowers shall take such steps as may be necessary or desirable, or that Agent may request, to comply with any such applicable Law with respect to Accounts evidencing obligations in excess of Five Hundred Thousand Dollars ($500,000) or more in the aggregate.

(viii) Borrowers shall furnish to Agent from time to time any statements and schedules further identifying or describing the Collateral and any other information, reports or evidence concerning the Collateral as Agent may reasonably request from time to time.

ARTICLE 10 - EVENTS OF DEFAULT

Section 10.1 Events of Default. For purposes of the Financing Documents, the occurrence of any of the following conditions and/or events, whether voluntary or involuntary, by operation of law or otherwise, shall constitute an "**Event of Default**":

(a) (i) any Credit Party shall fail to pay when due any principal, interest, premium or fee under any Financing Document or any other amount payable under any Financing Document and, with respect to any such payment other than principal or interest, such failure shall continue for 3 Business Days after the date such amount was due, or (ii) there shall occur any default in the performance of or compliance with any of the following sections or articles of this Agreement: Section 4.1, Section 4.2(b), Section 4.4(c), Section 4.6, Section 4.9, Section 4.11, Section 4.15, Section 4.16, Section 4.17, Article 5, Article 6 or Section 7.4;

(b) any Credit Party defaults in the performance of or compliance with any term contained in this Agreement or in any other Financing Document (other than occurrences described in other provisions of this Section 10.1 for which a different grace or cure period is specified or for which no grace or cure period is specified and thereby constitute immediate Events of Default) and such default is not remedied by the Credit Party or waived by Agent within twenty (20) days after the earlier of (i) receipt by Borrower Representative of notice from Agent or Required Lenders of such default, or (ii) actual knowledge of any Responsible Officer of the Borrower or any other Credit Party of such default; *provided*, *however*, that if the default cannot by its nature be cured within the twenty (20) day period or cannot after diligent attempts by Borrowers be cured within such twenty (20) day period, and such default is likely to be cured within a reasonable time (not to exceed the end of the twenty (20) day additional period), then Borrowers shall have an additional period (which period shall not in any case exceed twenty (20) days) to attempt to cure such default, and within such additional twenty (20) day period the failure of Borrowers to cure the default shall not be deemed an Event of Default (but no Loans shall be made during such period until such default is cured);

(c) any written representation, warranty, certification or statement made by any Credit Party or any other Person in any Financing Document or in any certificate, financial statement or other document delivered pursuant to any Financing Document is incorrect in any respect (or in any material respect if such representation, warranty, certification or statement is not by its terms already qualified as to materiality) when made (or deemed made);

(d) (i) failure of any Credit Party to pay when due or within any applicable grace period any principal, interest or other amount on Debt (other than the Loans), or the occurrence of any breach, default, condition or event with respect to any Debt (other than the Loans), if the effect of such failure or occurrence is to cause or to permit the holder or holders of any such Debt, or to cause, Debt or other liabilities having an individual principal amount in excess of $500,000 or having an aggregate principal amount in excess of $1,000,000 to become or be declared due prior to its stated maturity, or (ii) without limiting the foregoing, the occurrence of any breach or default under any terms or provisions of any Subordinated Debt Document or under any agreement subordinating the Subordinated Debt to all or any portion of the Obligations or the occurrence of any event requiring the prepayment of any Subordinated Debt;

(e) any Credit Party or any Subsidiary of a Credit Party shall commence a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law or any analogous procedure or step is taken in any other jurisdiction) now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of it or any substantial part of its property, or shall consent to any such relief or to the appointment of or taking possession by any such official in an involuntary case or other proceeding commenced against it, or shall make a general assignment for the benefit of creditors, or shall fail generally to pay its debts as they become due, or make an assignment of its property for the general benefit of its creditors under such Act, or make a proposal (or file a notice of its intention to do so) under such Act or any analogous procedure or step is taken in any other jurisdiction, or shall take any corporate action to authorize any of the foregoing;

(f) an involuntary case or other proceeding shall be commenced against any Credit Party or any Subsidiary of a Credit Party seeking liquidation, reorganization or other relief with respect to it or its debts under any bankruptcy, insolvency or other similar law now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of it or any substantial part of its property, and such involuntary case or other proceeding shall remain undismissed and unstayed for a period of forty-five (45) days; or an order for relief shall be entered against any Credit Party or any Subsidiary of a Credit Party under applicable federal bankruptcy, insolvency or other similar law in respect of (i) bankruptcy, liquidation, winding-up, dissolution or suspension of general operations, (ii) composition, rescheduling, reorganization, arrangement or readjustment of, or other relief from, or stay of proceedings to enforce, some or all of the debts or obligations, or (iii) possession, foreclosure, seizure or retention, sale or other disposition of, or other proceedings to enforce security over, all or any substantial part of the assets of such Credit Party or Subsidiary;

(g) (i) institution of any steps by any Person to terminate a Pension Plan if as a result of such termination any Credit Party or any member of the Controlled Group could be required to make a contribution to such Pension Plan, or could incur a liability or obligation to such Pension Plan, in excess of $500,000, (ii) a contribution failure occurs with respect to any Pension Plan sufficient to give rise to a Lien under Section 303(k) of ERISA or Section 430(k) of the Code or an event occurs that would reasonably be expected to give rise to a Lien under Section 4068 of ERISA, or (iii) there shall occur any withdrawal or partial withdrawal from a Multiemployer Plan and the withdrawal liability (without unaccrued interest) to Multiemployer Plans as a result of such withdrawal (including any outstanding withdrawal liability that any Credit Party or any member of the Controlled Group have incurred on the date of such withdrawal) exceeds $500,000;

(h) one or more judgments or orders for the payment of money (not paid or fully covered by insurance maintained in accordance with the requirements of this Agreement and as to which the relevant insurance company has not denied coverage) aggregating in excess of $500,000 shall be rendered against any or all Credit Parties and either (i) enforcement proceedings shall have been commenced by any creditor upon any such judgments or orders, or (ii) there shall be any period of twenty (20) consecutive days during which a stay of enforcement of any such judgments or orders, by reason of a pending appeal, bond or otherwise, shall not be in effect;

(i) except solely as a result of any action or inaction of Agent or any Lenders (*provided* that such action or inaction is not caused by a Credit Party's failure to comply with the terms of the Financing Documents), any Lien created by any of the Security Documents shall at any time fail to constitute a valid and perfected Lien on all of the Collateral purported to be encumbered thereby, subject to no prior or equal Lien except Permitted Liens, or any Credit Party shall so assert;

(j) the institution by any Governmental Authority of criminal proceedings against any Credit Party;

(k) an event of default occurs under any Guarantee of any portion of the Obligations;

(l) the occurrence of a Change in Control;

(m) any Borrower makes any payment on account of any Debt that has been subordinated to any of the Obligations, other than payments specifically permitted by the terms of such subordination;

(n) if any Borrower is or becomes an entity whose equity is registered with the SEC, and/or is publicly traded on and/or registered with a public securities exchange, such Borrower's equity fails to remain registered with the SEC in good standing, and/or such equity fails to remain publicly traded on and registered with a public securities exchange;

(o) the occurrence of any fact, event or circumstance that could reasonably be expected to result in a Material Adverse Effect;

(p) (i) the voluntary withdrawal or institution of any action or proceeding by the FDA or similar Governmental Authority to order the withdrawal of any Product or Product category from the market or to enjoin Borrower, its Subsidiaries or any representative of Borrower or its Subsidiaries from manufacturing, marketing, selling or distributing any Product or Product category which, in each case, would reasonably be expected to result in a Material Adverse Effect, (ii) the institution of any action or proceeding by any DEA, FDA, CMS or any other Governmental Authority to revoke, suspend, reject withdraw, limit or restrict any Regulatory Required Permit held by Borrower, its Subsidiaries or any representative of Borrower or its Subsidiaries, which in each case, has or could reasonably be expected to result in Material Adverse Effect, (iii) the commencement of any enforcement action against Borrower, its Subsidiaries or any representative of Borrower or its Subsidiaries (with respect to the business of Borrower or its Subsidiaries) by DEA, FDA, CMS or any other Governmental Authority which has or could reasonably be expected to result in a Material Adverse Effect, or (iv) the occurrence of adverse test results in connection with a Product which could reasonably be expected to result in a Material Adverse Effect;

(q) any Credit Party defaults under or breaches any Material Contract (after any applicable grace period contained therein), or a Material Contract shall be terminated by a third party or parties party thereto prior to the expiration thereof and such default, breach or termination would reasonably be expected to result in a Material Adverse Effect; or

(r) any of the Financing Documents shall for any reason fail to constitute the valid and binding agreement of any party thereto, or any Credit Party shall so assert, in each case, unless such Financing Document terminates pursuant to the terms and conditions thereof without any breach or default thereunder by any Credit Party thereto.

All cure periods provided for in this Section 10.1 shall run concurrently with any cure period provided for in any applicable Financing Documents under which the default occurred.

Section 10.2 Acceleration and Suspension or Termination of Term Loan Commitment. Upon the occurrence and during the continuance of an Event of Default, Agent may, and shall if requested by Required Lenders, (a) by notice to Borrower Representative suspend or terminate the Term Loan Commitment and the obligations of Agent and the Lenders with respect thereto, in whole or in part (and, if in part, each Lender's Term Loan Commitment shall be reduced in accordance with its Pro Rata Share), and/or (b) by notice to Borrower Representative declare all or any portion of the Obligations to be, and the Obligations shall thereupon become, immediately due and payable, with accrued interest thereon, without presentment, demand, protest or other notice of any kind, all of which are hereby waived by each Borrower and Borrowers will pay the same; *provided*, *however*, that in the case of any of the Events of Default specified in Section 10.1(e) or 10.1(f) above, without any notice to any Borrower or any other act by Agent or the Lenders, the Term Loan Commitment and the obligations of Agent and the Lenders with respect thereto shall thereupon immediately and automatically terminate and all of the Obligations shall become immediately and automatically due and payable without presentment, demand, protest or other notice of any kind, all of which are hereby waived by each Borrower and Borrowers will pay the same.

Section 10.3 UCC Remedies.

(a) Upon the occurrence of and during the continuance of an Event of Default under this Agreement or the other Financing Documents, Agent, in addition to all other rights, options, and remedies granted to Agent under this Agreement or at law or in equity, may exercise, either directly or through one or more assignees or designees, all rights and remedies granted to it under all Financing Documents and under the UCC in effect in the applicable jurisdiction(s) and under any other applicable law, including, without limitation:

(i) the right to take possession of, send notices regarding, and collect directly the Collateral, with or without judicial process;

(ii) the right to (by its own means or with judicial assistance) enter any of Borrowers' premises and take possession of the Collateral, or render it unusable, or to render it usable or saleable, or dispose of the Collateral on such premises in compliance with subsection (iii) below and to take possession of Borrowers' original books and records, to obtain access to Borrowers' data processing equipment, computer hardware and software relating to the Collateral and to use all of the foregoing and the information contained therein in any manner Agent deems appropriate, without any liability for rent, storage, utilities, or other sums, and Borrowers shall not resist or interfere with such action (if Borrowers' books and records are prepared or maintained by an accounting service, contractor or other third party agent, Borrowers hereby irrevocably authorize such service, contractor or other agent, upon notice by Agent to such Person that an Event of Default has occurred and is continuing, to deliver to Agent or its designees such books and records, and to follow Agent's instructions with respect to further services to be rendered);

(iii) the right to require Borrowers at Borrowers' expense to assemble all or any part of the Collateral and make it available to Agent at any place designated by Lender;

(iv) the right to notify postal authorities to change the address for delivery of Borrowers' mail to an address designated by Agent and to receive, open and dispose of all mail addressed to any Borrower; and/or

(v) the right to enforce Borrowers' rights against Account Debtors and other obligors, including, without limitation, (i) the right to collect Accounts directly in Agent's own name (as agent for Lenders) and to charge the collection costs and expenses, including documented out-of-pocket attorneys' fees, to Borrowers, and (ii) the right, in the name of Agent or any designee of Agent or Borrowers, to verify the validity, amount or any other matter relating to any Accounts by mail, telephone, telegraph or otherwise, including, without limitation, verification of Borrowers' compliance with applicable Laws. Borrowers shall cooperate fully with Agent in an effort to facilitate and promptly conclude such verification process. Such verification may include contacts between Agent and applicable federal, state and local regulatory authorities having jurisdiction over the Borrowers' affairs, all of which contacts Borrowers hereby irrevocably authorize.

(b) Each Borrower agrees that a notice received by it at least ten (10) days before the time of any intended public sale, or the time after which any private sale or other disposition of the Collateral is to be made, shall be deemed to be reasonable notice of such sale or other disposition. If permitted by applicable law, any perishable Collateral which threatens to speedily decline in value or which is sold on a recognized market may be sold immediately by Agent without prior notice to Borrowers. At any sale or disposition of Collateral, Agent may (to the extent permitted by applicable law) purchase all or any part of the Collateral, free from any right of redemption by Borrowers, which right is hereby waived and released. Each Borrower covenants and agrees not to interfere with or impose any obstacle to Agent's exercise of its rights and remedies with respect to the Collateral. Agent shall have no obligation to clean-up or otherwise prepare the Collateral for sale. Agent may comply with any applicable state or federal law requirements in connection with a disposition of the Collateral and compliance will not be considered to adversely affect the commercial reasonableness of any sale of the Collateral. Agent may sell the Collateral without giving any warranties as to the Collateral. Agent may specifically disclaim any warranties of title or the like. This procedure will not be considered to adversely affect the commercial reasonableness of any sale of the Collateral. If Agent sells any of the Collateral upon credit, Borrowers will be credited only with payments actually made by the purchaser, received by Agent and applied to the indebtedness of the purchaser. In the event the purchaser fails to pay for the Collateral, Agent may resell the Collateral and Borrowers shall be credited with the proceeds of the sale. Borrowers shall remain liable for any deficiency if the proceeds of any sale or disposition of the Collateral are insufficient to pay all Obligations.

(c) Without restricting the generality of the foregoing and for the purposes aforesaid, each Borrower hereby appoints and constitutes Agent its lawful attorney-in-fact with full power of substitution in the Collateral, upon the occurrence and during the continuance of an Event of Default, to (i) use unadvanced funds remaining under this Agreement or which may be reserved, escrowed or set aside for any purposes hereunder at any time, or to advance funds in excess of the face amount of the Notes, (ii) pay, settle or compromise all existing bills and claims, which may be Liens or security interests, or to avoid such bills and claims becoming Liens against the Collateral, (iii) execute all applications and certificates in the name of such Borrower and to prosecute and defend all actions or proceedings in connection with the Collateral, and (iv) do any and every act which such Borrower might do in its own behalf; it being understood and agreed that this power of attorney in this subsection (c) shall be a power coupled with an interest and cannot be revoked.

(d) Upon the occurrence and during the continuance of an Event of Default, subject to any right of any third parties and/or any agreement between any Borrower and any third party to the extent not granted or entered into in contravention of the terms of this Agreement, Agent and each Lender is hereby granted a non-exclusive, royalty-free license or other right to use, without charge, Borrowers' labels, mask works, rights of use of any name, any other Intellectual Property and advertising matter, and any similar property as it pertains to the Collateral, in completing production of, advertising for sale, and selling any Collateral and, in connection with Agent's exercise of its rights under this Article, Borrowers' rights under all licenses (whether as licensor or licensee) and all franchise agreements inure to Agent's and each Lender's benefit.

Section 10.4 Reserved.

Section 10.5 Default Rate of Interest. At the election of Agent or Required Lenders, after the occurrence of an Event of Default and for so long as it continues, the Loans and other Obligations shall bear interest at rates that are three percent (3.0%) per annum in excess of the rates otherwise payable under this Agreement; *provided*, *however*, that in the case of any Event of Default specified in Section 10.1(e) or 10.1(f) above, such default rates shall apply immediately and automatically without the need for any election or action of any kind on the part of Agent or any Lender.

Section 10.6 Setoff Rights. During the continuance of any Event of Default, each Lender is hereby authorized by each Borrower at any time or from time to time, with reasonably prompt subsequent notice to such Borrower (any prior or contemporaneous notice being hereby expressly waived) to set off and to appropriate and to apply any and all (a) balances held by such Lender or any of such Lender's Affiliates at any of its offices for the account of such Borrower or any of its Subsidiaries (regardless of whether such balances are then due to such Borrower or its Subsidiaries), and (b) other property at any time held or owing by such Lender to or for the credit or for the account of such Borrower or any of its Subsidiaries, against and on account of any of the Obligations (other than contingent obligations for which no claim has been made); except that no Lender shall exercise any such right without the prior written consent of Agent. Any Lender exercising a right to set off shall purchase for cash (and the other Lenders shall sell) interests in each of such other Lender's Pro Rata Share of the Obligations as would be necessary to cause all Lenders to share the amount so set off with each other Lender in accordance with their respective Pro Rata Share of the Obligations. Each Borrower agrees, to the fullest extent permitted by law, that any Lender and any of such Lender's Affiliates may exercise its right to set off with respect to the Obligations as provided in this Section 10.6.

Section 10.7 Application of Proceeds.

(a) Notwithstanding anything to the contrary contained in this Agreement, upon the occurrence and during the continuance of an Event of Default, each Borrower irrevocably waives the right to direct the application of any and all payments at any time or times thereafter received by Agent from or on behalf of such Borrower or any Guarantor of all or any part of the Obligations, and, as between Borrowers on the one hand and Agent and Lenders on the other, Agent shall have the continuing and exclusive right to apply and to reapply any and all payments received against the Obligations in such manner as Agent may deem advisable notwithstanding any previous application by Agent.

(b) Following the occurrence and during the continuance of an Event of Default, but absent the occurrence and continuance of an Acceleration Event, Agent shall apply any and all payments received by Agent in respect of the Obligations, and any and all proceeds of Collateral received by Agent, in such order as Agent may from time to time elect.

(c) Notwithstanding anything to the contrary contained in this Agreement, if an Acceleration Event shall have occurred, and so long as it continues, Agent shall apply any and all payments received by Agent in respect of the Obligations, and any and all proceeds of Collateral received by Agent, in the following order: *first*, to all fees, costs, indemnities, liabilities, obligations and expenses incurred by or owing to Agent with respect to this Agreement, the other Financing Documents or the Collateral; *second*, to all fees, costs, indemnities, liabilities, obligations and expenses incurred by or owing to any Lender with respect to this Agreement, the other Financing Documents or the Collateral; *third*, to accrued and unpaid interest on the Obligations (including any interest which, but for the provisions of the Bankruptcy Code, would have accrued on such amounts); *fourth*, to the principal amount of the Obligations outstanding; and *fifth*, to any other indebtedness or obligations of Borrowers owing to Agent or any Lender under the Financing Documents. Any balance remaining shall be delivered to Borrowers or to whomever may be lawfully entitled to receive such balance or as a court of competent jurisdiction may direct. In carrying out the foregoing, (y) amounts received shall be applied in the numerical order provided until exhausted prior to the application to the next succeeding category, and (z) each of the Persons entitled to receive a payment in any particular category shall receive an amount equal to its Pro Rata Share of amounts available to be applied pursuant thereto for such category.

Section 10.8 Waivers.

(a) Except as otherwise provided for in this Agreement and to the fullest extent permitted by applicable law, each Borrower waives: (i) presentment, demand and protest, and notice of presentment, dishonor, intent to accelerate, acceleration, protest, default, nonpayment, maturity, release, compromise, settlement, extension or renewal of any or all Financing Documents, the Notes or any other notes, commercial paper, accounts, contracts, documents, Instruments, Chattel Paper and Guarantees at any time held by Lenders on which any Borrower may in any way be liable, and hereby ratifies and confirms whatever Lenders may do in this regard; (ii) all rights to notice and a hearing prior to Agent's or any Lender's taking possession or control of, or to Agent's or any Lender's replevy, attachment or levy upon, any Collateral or any bond or security which might be required by any court prior to allowing Agent or any Lender to exercise any of its remedies; and (iii) the benefit of all valuation, appraisal and exemption Laws. Each Borrower acknowledges that it has been advised by counsel of its choices and decisions with respect to this Agreement, the other Financing Documents and the transactions evidenced hereby and thereby.

(b) Each Borrower for itself and all its successors and assigns, (i) agrees that its liability shall not be in any manner affected by any indulgence, extension of time, renewal, waiver, or modification granted or consented to by Lender; (ii) consents to any indulgences and all extensions of time, renewals, waivers, or modifications that may be granted by Agent or any Lender with respect to the payment or other provisions of the Financing Documents, and to any substitution, exchange or release of the Collateral, or any part thereof, with or without substitution, and agrees to the addition or release of any Borrower, endorsers, guarantors, or sureties, or whether primarily or secondarily liable, without notice to any other Borrower and without affecting its liability hereunder; (iii) agrees that its liability shall be unconditional and without regard to the liability of any other Borrower, Agent or any Lender for any tax on the indebtedness; and (iv) to the fullest extent permitted by law, expressly waives the benefit of any statute or rule of law or equity now provided, or which may hereafter be provided, which would produce a result contrary to or in conflict with the foregoing.

(c) To the extent that Agent or any Lender may have acquiesced in any noncompliance with any requirements or conditions precedent to the closing of the Loans or to any subsequent disbursement of Loan proceeds, such acquiescence shall not be deemed to constitute a waiver by Agent or any Lender of such requirements with respect to any future disbursements of Loan proceeds and Agent may at any time after such acquiescence require Borrowers to comply with all such requirements. Any forbearance by Agent or Lender in exercising any right or remedy under any of the Financing Documents, or otherwise afforded by applicable law, including any failure to accelerate the maturity date of the Loans, shall not be a waiver of or preclude the exercise of any right or remedy nor shall it serve as a novation of the Notes or as a reinstatement of the Loans or a waiver of such right of acceleration or the right to insist upon strict compliance of the terms of the Financing Documents. Agent's or any Lender's acceptance of payment of any sum secured by any of the Financing Documents after the due date of such payment shall not be a waiver of Agent's and such Lender's right to either require prompt payment when due of all other sums so secured or to declare a default for failure to make prompt payment. The procurement of insurance or the payment of taxes or other Liens or charges by Agent as the result of an Event of Default shall not be a waiver of Agent's right to accelerate the maturity of the Loans, nor shall Agent's receipt of any condemnation awards, insurance proceeds, or damages under this Agreement operate to cure or waive any Credit Party's default in payment of sums secured by any of the Financing Documents.

(d) Without limiting the generality of anything contained in this Agreement or the other Financing Documents, each Borrower agrees that if an Event of Default is continuing (i) Agent and Lenders shall not be subject to any "one action" or "election of remedies" law or rule, and (ii) all Liens and other rights, remedies or privileges provided to Agent or Lenders shall remain in full force and effect until Agent or Lenders have exhausted all remedies against the Collateral and any other properties owned by Borrowers and the Financing Documents and other security instruments or agreements securing the Loans have been foreclosed, sold and/or otherwise realized upon in satisfaction of Borrowers' obligations under the Financing Documents.

(e) Nothing contained herein or in any other Financing Document shall be construed as requiring Agent or any Lender to resort to any part of the Collateral for the satisfaction of any of Borrowers' obligations under the Financing Documents in preference or priority to any other Collateral, and Agent may seek satisfaction out of all of the Collateral or any part thereof, in its absolute discretion in respect of Borrowers' obligations under the Financing Documents. In addition, Agent shall have the right from time to time to partially foreclose upon any Collateral in any manner and for any amounts secured by the Financing Documents then due and payable as determined by Agent in its sole discretion, including, without limitation, the following circumstances: (i) in the event any Borrower defaults beyond any applicable grace period in the payment of one or more scheduled payments of principal and/or interest, Agent may foreclose upon all or any part of the Collateral to recover such delinquent payments, or (ii) in the event Agent elects to accelerate less than the entire outstanding principal balance of the Loans, Agent may foreclose all or any part of the Collateral to recover so much of the principal balance of the Loans as Lender may accelerate and such other sums secured by one or more of the Financing Documents as Agent may elect. Notwithstanding one or more partial foreclosures, any unforeclosed Collateral shall remain subject to the Financing Documents to secure payment of sums secured by the Financing Documents and not previously recovered.

(f) To the fullest extent permitted by law, each Borrower, for itself and its successors and assigns, waives in the event of foreclosure of any or all of the Collateral any equitable right otherwise available to any Credit Party which would require the separate sale of any of the Collateral or require Agent or Lenders to exhaust their remedies against any part of the Collateral before proceeding against any other part of the Collateral; and further in the event of such foreclosure each Borrower does hereby expressly consent to and authorize, at the option of Agent, the foreclosure and sale either separately or together of each part of the Collateral.

Section 10.9 Injunctive Relief. The parties acknowledge and agree that, in the event of a breach or threatened breach of any Credit Party's obligations under any Financing Documents, Agent and Lenders may have no adequate remedy in money damages and, accordingly, shall be entitled to an injunction (including, without limitation, a temporary restraining order, preliminary injunction, writ of attachment, or order compelling an audit) against such breach or threatened breach, including, without limitation, maintaining any cash management and collection procedure described herein. However, no specification in this Agreement of a specific legal or equitable remedy shall be construed as a waiver or prohibition against any other legal or equitable remedies in the event of a breach or threatened breach of any provision of this Agreement. Each Credit Party waives, to the fullest extent permitted by law, the requirement of the posting of any bond in connection with such injunctive relief. By joining in the Financing Documents as a Credit Party, each Credit Party specifically joins in this Section as if this Section were a part of each Financing Document executed by such Credit Party.

Section 10.10 Marshalling; Payments Set Aside. Neither Agent nor any Lender shall be under any obligation to marshal any assets in payment of any or all of the Obligations. To the extent that Borrower makes any payment or Agent enforces its Liens or Agent or any Lender exercises its right of set-off, and such payment or the proceeds of such enforcement or set-off is subsequently invalidated, declared to be fraudulent or preferential, set aside, or required to be repaid by anyone, then to the extent of such recovery, the Obligations or part thereof originally intended to be satisfied, and all Liens, rights and remedies therefor, shall be revived and continued in full force and effect as if such payment had not been made or such enforcement or set-off had not occurred.

ARTICLE 11 - AGENT

Section 11.1 Appointment and Authorization. Each Lender hereby irrevocably appoints and authorizes Agent to enter into each of the Financing Documents to which it is a party (other than this Agreement) on its behalf and to take such actions as Agent on its behalf and to exercise such powers under the Financing Documents as are delegated to Agent by the terms thereof, together with all such powers as are reasonably incidental thereto. Subject to the terms of Section 11.16 and to the terms of the other Financing Documents, Agent is authorized and empowered to amend, modify, or waive any provisions of this Agreement or the other Financing Documents on behalf of Lenders. The provisions of this Article 11 are solely for the benefit of Agent and Lenders and neither any Borrower nor any other Credit Party shall have any rights as a third party beneficiary of any of the provisions hereof. In performing its functions and duties under this Agreement, Agent shall act solely as agent of Lenders and does not assume and shall not be deemed to have assumed any obligation toward or relationship of agency or trust with or for any Borrower or any other Credit Party. Agent may perform any of its duties hereunder, or under the Financing Documents, by or through its agents, servicers, trustees, investment managers or employees.

Section 11.2 Agent and Affiliates. Agent shall have the same rights and powers under the Financing Documents as any other Lender and may exercise or refrain from exercising the same as though it were not Agent, and Agent and its Affiliates may lend money to, invest in and generally engage in any kind of business with each Credit Party or Affiliate of any Credit Party as if it were not Agent hereunder.

Section 11.3 Action by Agent. The duties of Agent shall be mechanical and administrative in nature. Agent shall not have by reason of this Agreement a fiduciary relationship in respect of any Lender. Nothing in this Agreement or any of the Financing Documents is intended to or shall be construed to impose upon Agent any obligations in respect of this Agreement or any of the Financing Documents except as expressly set forth herein or therein.

Section 11.4 Consultation with Experts. Agent may consult with legal counsel, independent public accountants and other experts selected by it and shall not be liable for any action taken or omitted to be taken by it in good faith in accordance with the advice of such counsel, accountants or experts.

Section 11.5 Liability of Agent. Neither Agent nor any of its directors, officers, agents, trustees, investment managers, servicers or employees shall be liable to any Lender for any action taken or not taken by it in connection with the Financing Documents, except that Agent shall be liable with respect to its specific duties set forth hereunder but only to the extent of its own gross negligence or willful misconduct in the discharge thereof as determined by a final non-appealable judgment of a court of competent jurisdiction. Neither Agent nor any of its directors, officers, agents, trustees, investment managers, servicers or employees shall be responsible for or have any duty to ascertain, inquire into or verify (a) any statement, warranty or representation made in connection with any Financing Document or any borrowing hereunder; (b) the performance or observance of any of the covenants or agreements specified in any Financing Document; (c) the satisfaction of any condition specified in any Financing Document; (d) the validity, effectiveness, sufficiency or genuineness of any Financing Document, any Lien purported to be created or perfected thereby or any other instrument or writing furnished in connection therewith; (e) the existence or non-existence of any Default or Event of Default; or (f) the financial condition of any Credit Party. Agent shall not incur any liability by acting in reliance upon any notice, consent, certificate, statement, or other writing (which may be a bank wire, facsimile or electronic transmission or similar writing) believed by it to be genuine or to be signed by the proper party or parties. Agent shall not be liable for any apportionment or distribution of payments made by it in good faith and if any such apportionment or distribution is subsequently determined to have been made in error the sole recourse of any Lender to whom payment was due but not made, shall be to recover from other Lenders any payment in excess of the amount to which they are determined to be entitled (and such other Lenders hereby agree to return to such Lender any such erroneous payments received by them).

Section 11.6 Indemnification. Each Lender shall, in accordance with its Pro Rata Share, indemnify Agent (to the extent not reimbursed by Borrowers) upon demand against any cost, expense (including counsel fees and disbursements), claim, demand, action, loss or liability (except such as result from Agent's gross negligence or willful misconduct as determined by a final non-appealable judgment of a court of competent jurisdiction) that Agent may suffer or incur in connection with the Financing Documents or any action taken or omitted by Agent hereunder or thereunder. If any indemnity furnished to Agent for any purpose shall, in the opinion of Agent, be insufficient or become impaired, Agent may call for additional indemnity and cease, or not commence, to do the acts indemnified against even if so directed by Required Lenders until such additional indemnity is furnished.

Section 11.7 Right to Request and Act on Instructions. Agent may at any time request instructions from Lenders with respect to any actions or approvals which by the terms of this Agreement or of any of the Financing Documents Agent is permitted or desires to take or to grant, and if such instructions are promptly requested, Agent shall be absolutely entitled to refrain from taking any action or to withhold any approval and shall not be under any liability whatsoever to any Person for refraining from any action or withholding any approval under any of the Financing Documents until it shall have received such instructions from Required Lenders or all or such other portion of the Lenders as shall be prescribed by this Agreement. Without limiting the foregoing, no Lender shall have any right of action whatsoever against Agent as a result of Agent acting or refraining from acting under this Agreement or any of the other Financing Documents in accordance with the instructions of Required Lenders (or all or such other portion of the Lenders as shall be prescribed by this Agreement) and, notwithstanding the instructions of Required Lenders (or such other applicable portion of the Lenders), Agent shall have no obligation to take any action if it believes, in good faith, that such action would violate applicable Law or exposes Agent to any liability for which it has not received satisfactory indemnification in accordance with the provisions of Section 11.6.

Section 11.8 Credit Decision. Each Lender acknowledges that it has, independently and without reliance upon Agent or any other Lender, and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Agreement. Each Lender also acknowledges that it will, independently and without reliance upon Agent or any other Lender, and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit decisions in taking or not taking any action under the Financing Documents.

Section 11.9 Collateral Matters. Lenders irrevocably authorize Agent, at its option and in its discretion, to (a) release any Lien granted to or held by Agent under any Security Document (i) upon termination of the Term Loan Commitment and payment in full of all Obligations; or (ii) constituting property sold or disposed of as part of or in connection with any disposition permitted under any Financing Document (it being understood and agreed that Agent may conclusively rely without further inquiry on a certificate of a Responsible Officer as to the sale or other disposition of property being made in full compliance with the provisions of the Financing Documents); and (b) subordinate any Lien granted to or held by Agent under any Security Document to a Permitted Lien that is allowed to have priority over the Liens granted to or held by Agent pursuant to the definition of "Permitted Liens". Upon request by Agent at any time, Lenders will confirm Agent's authority to release and/or subordinate particular types or items of Collateral pursuant to this Section 11.9.

Section 11.10 Agency for Perfection. Agent and each Lender hereby appoint each other Lender as agent for the purpose of perfecting Agent's security interest in assets which, in accordance with the Uniform Commercial Code in any applicable jurisdiction, can be perfected by possession or control. Should any Lender (other than Agent) obtain possession or control of any such assets, such Lender shall notify Agent thereof, and, promptly upon Agent's request therefor, shall deliver such assets to Agent or in accordance with Agent's instructions or transfer control to Agent in accordance with Agent's instructions. Each Lender agrees that it will not have any right individually to enforce or seek to enforce any Security Document or to realize upon any Collateral for the Loan unless instructed to do so by Agent (or consented to by Agent), it being understood and agreed that such rights and remedies may be exercised only by Agent.

Section 11.11 Notice of Default. Agent shall not be deemed to have knowledge or notice of the occurrence of any Default or Event of Default except with respect to defaults in the payment of principal, interest and fees required to be paid to Agent for the account of Lenders, unless Agent shall have received written notice from a Lender or a Borrower referring to this Agreement, describing such Default or Event of Default and stating that such notice is a "notice of default". Agent will notify each Lender of its receipt of any such notice. Agent shall take such action with respect to such Default or Event of Default as may be requested by Required Lenders (or all or such other portion of the Lenders as shall be prescribed by this Agreement) in accordance with the terms hereof. Unless and until Agent has received any such request, Agent may (but shall not be obligated to) take such action, or refrain from taking such action, with respect to such Default or Event of Default as it shall deem advisable or in the best interests of Lenders.

Section 11.12 Assignment by Agent; Resignation of Agent; Successor Agent.

(a) Agent may at any time assign its rights, powers, privileges and duties hereunder to (i) another Lender or an Affiliate of Agent or any Approved Fund, or (ii) any Eligible Assignee to whom Agent, in its capacity as a Lender, has assigned (or will assign, in conjunction with such assignment of agency rights hereunder) 50% or more of its Loan, in each case without the consent of the Lenders or Borrowers. Following any such assignment, Agent shall endeavor to give notice to the Lenders and Borrowers. Failure to give such notice shall not affect such assignment in any way or cause the assignment to be ineffective. An assignment by Agent pursuant to this subsection (a) shall not be deemed a resignation by Agent for purposes of subsection (b) below.

(b) Without limiting the rights of Agent to designate an assignee pursuant to subsection (a) above, Agent may at any time give notice of its resignation to the Lenders and Borrowers. Upon receipt of any such notice of resignation, Required Lenders shall have the right to appoint a successor Agent. If no such successor shall have been so appointed by Required Lenders and shall have accepted such appointment within ten (10) Business Days after the retiring Agent gives notice of its resignation, then the retiring Agent may on behalf of the Lenders, appoint a successor Agent; *provided*, *however*, that if Agent shall notify Borrowers and the Lenders that no Person has accepted such appointment, then such resignation shall nonetheless become effective in accordance with such notice from Agent that no Person has accepted such appointment and, from and following delivery of such notice, (i) the retiring Agent shall be discharged from its duties and obligations hereunder and under the other Financing Documents, and (ii) all payments, communications and determinations provided to be made by, to or through Agent shall instead be made by or to each Lender directly, until such time as Required Lenders appoint a successor Agent as provided for above in this paragraph.

(c) Upon (i) an assignment permitted by subsection (a) above, or (ii) the acceptance of a successor's appointment as Agent pursuant to subsection (b) above, such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring (or retired) Agent, and the retiring Agent shall be discharged from all of its duties and obligations hereunder and under the other Financing Documents (if not already discharged therefrom as provided above in this paragraph). The fees payable by Borrowers to a successor Agent shall be the same as those payable to its predecessor unless otherwise agreed between Borrowers and such successor. After the retiring Agent's resignation hereunder and under the other Financing Documents, the provisions of this Article and Section 11.12 shall continue in effect for the benefit of such retiring Agent and its sub-agents in respect of any actions taken or omitted to be taken by any of them while the retiring Agent was acting or was continuing to act as Agent.

Section 11.13 Payment and Sharing of Payment.

(a) Reserved.

(b) Term Loan Payments. Payments of principal, interest and fees in respect of the Term Loans will be settled on the date of receipt if received by Agent on the last Business Day of a month or on the Business Day immediately following the date of receipt if received on any day other than the last Business Day of a month; *provided*, *however*, that, in the case such Lender is a Defaulted Lender, Agent shall be entitled to set off the funding short fall against that Defaulted Lender's respective share of all payments received from any Borrower.

(c) Return of Payments.

(i) If Agent pays an amount to a Lender under this Agreement in the belief or expectation that a related payment has been or will be received by Agent from a Borrower and such related payment is not received by Agent, then Agent will be entitled to recover such amount from such Lender on demand without setoff, counterclaim or deduction of any kind, together with interest accruing on a daily basis at the Federal Funds Rate.

(ii) If Agent determines at any time that any amount received by Agent under this Agreement must be returned to any Borrower or paid to any other Person pursuant to any insolvency law or otherwise, then, notwithstanding any other term or condition of this Agreement or any other Financing Document, Agent will not be required to distribute any portion thereof to any Lender. In addition, each Lender will repay to Agent on demand any portion of such amount that Agent has distributed to such Lender, together with interest at such rate, if any, as Agent is required to pay to any Borrower or such other Person, without setoff, counterclaim or deduction of any kind.

(d) Defaulted Lenders. The failure of any Defaulted Lender to make any payment required by it hereunder shall not relieve any other Lender of its obligations to make payment, but neither any other Lender nor Agent shall be responsible for the failure of any Defaulted Lender to make any payment required hereunder. Notwithstanding anything set forth herein to the contrary, a Defaulted Lender shall not have any voting or consent rights under or with respect to any Financing Document or constitute a "Lender" (or be included in the calculation of "Required Lenders" hereunder) for any voting or consent rights under or with respect to any Financing Document.

(e) Sharing of Payments. If any Lender shall obtain any payment or other recovery (whether voluntary, involuntary, by application of setoff or otherwise) on account of any Loan (other than pursuant to the terms of Section 2.8(d)) in excess of its Pro Rata Share of payments entitled pursuant to the other provisions of this Section 11.13, such Lender shall purchase from the other Lenders such participations in extensions of credit made by such other Lenders (without recourse, representation or warranty) as shall be necessary to cause such purchasing Lender to share the excess payment or other recovery ratably with each of them; *provided*, *however*, that if all or any portion of the excess payment or other recovery is thereafter required to be returned or otherwise recovered from such purchasing Lender, such portion of such purchase shall be rescinded and each Lender which has sold a participation to the purchasing Lender shall repay to the purchasing Lender the purchase price to the ratable extent of such return or recovery, without interest. Each Borrower agrees that any Lender so purchasing a participation from another Lender pursuant to this clause (e) may, to the fullest extent permitted by law, exercise all its rights of payment (including pursuant to Section 10.6) with respect to such participation as fully as if such Lender were the direct creditor of Borrowers in the amount of such participation). If under any applicable bankruptcy, insolvency or other similar law, any Lender receives a secured claim in lieu of a setoff to which this clause (e) applies, such Lender shall, to the extent practicable, exercise its rights in respect of such secured claim in a manner consistent with the rights of the Lenders entitled under this clause (e) to share in the benefits of any recovery on such secured claim.

Section 11.14 Right to Perform, Preserve and Protect. If any Credit Party fails to perform any obligation hereunder or under any other Financing Document, Agent itself may, but shall not be obligated to, cause such obligation to be performed at Borrowers' expense. Agent is further authorized by Borrowers and the Lenders to make expenditures from time to time which Agent, in its reasonable business judgment, deems necessary or desirable to (a) preserve or protect the business conducted by Borrowers, the Collateral, or any portion thereof, and/or (b) enhance the likelihood of, or maximize the amount of, repayment of the Loan and other Obligations. Each Borrower hereby agrees to reimburse Agent on demand for any and all costs, liabilities and obligations incurred by Agent pursuant to this Section 11.14. Each Lender hereby agrees to indemnify Agent upon demand for any and all costs, liabilities and obligations incurred by Agent pursuant to this Section 11.14, in accordance with the provisions of Section 11.6.

Section 11.15 Additional Titled Agents. Except for rights and powers, if any, expressly reserved under this Agreement to any bookrunner, arranger or to any titled agent named on the cover page of this Agreement, other than Agent (collectively, the "**Additional Titled Agents**"), and except for obligations, liabilities, duties and responsibilities, if any, expressly assumed under this Agreement by any Additional Titled Agent, no Additional Titled Agent, in such capacity, has any rights, powers, liabilities, duties or responsibilities hereunder or under any of the other Financing Documents. Without limiting the foregoing, no Additional Titled Agent shall have nor be deemed to have a fiduciary relationship with any Lender. At any time that any Lender serving as an Additional Titled Agent shall have transferred to any other Person (other than any Affiliates) all of its interests in the Loan, such Lender shall be deemed to have concurrently resigned as such Additional Titled Agent.

Section 11.16 Amendments and Waivers.

(a) No provision of this Agreement or any other Financing Document may be amended, waived or otherwise modified unless such amendment, waiver or other modification is in writing and is signed or otherwise approved by Borrowers, the Required Lenders and any other Lender to the extent required under Section 11.16(b); *provided*, *however*, the Fee Letter may be amended, or rights or privileges thereunder waived, in a writing executed only by the parties thereto.

(b) In addition to the required signatures under Section 11.16(a), no provision of this Agreement or any other Financing Document may be amended, waived or otherwise modified unless such amendment, waiver or other modification is in writing and is signed or otherwise approved by the following Persons:

(i) if any amendment, waiver or other modification would increase a Lender's funding obligations in respect of any Loan, by such Lender; and/or

(ii) if the rights or duties of Agent are affected thereby, by Agent;

provided, *however*, that, in each of (i) and (ii) above, no such amendment, waiver or other modification shall, unless signed or otherwise approved in writing by all the Lenders directly affected thereby, (A)reduce the principal of, rate of interest on or any fees with respect to any Loan or forgive any principal, interest (other than default interest) or fees (other than late charges) with respect to any Loan; (B)postpone the date fixed for, or waive, any payment (other than any mandatory prepayment pursuant to Section 2.1(a)(ii)) of principal of any Loan, or of interest on any Loan (other than default interest) or any fees provided for hereunder (other than late charges) or postpone the date of termination of any commitment of any Lender hereunder; (C) change the definition of the term Required Lenders or the percentage of Lenders which shall be required for Lenders to take any action hereunder; (D) release all or substantially all of the Collateral, authorize any Borrower to sell or otherwise dispose of all or substantially all of the Collateral, release any Guarantor of all or any portion of the Obligations or its Guarantee obligations with respect thereto, or consent to a transfer of any of the Intellectual Property, except, in each case with respect to this clause (D), as otherwise may be provided in this Agreement or the other Financing Documents (including in connection with any disposition permitted hereunder); (E) amend, waive or otherwise modify this Section 11.16(b) or the definitions of the terms used in this Section 11.16(b) insofar as the definitions affect the substance of this Section 11.16(b); (F) consent to the assignment, delegation or other transfer by any Credit Party of any of its rights and obligations under any Financing Document or release any Borrower of its payment obligations under any Financing Document, except, in each case with respect to this clause (F), pursuant to a merger or consolidation permitted pursuant to this Agreement; or (G) amend any of the provisions of Section 10.7 or amend any of the definitions Pro Rata Share, Term Loan Commitment, Term Loan Tranche 1 Commitments, Term Loan Tranche 2 Commitments, Term Loan Commitment Amount, Term Loan Tranche 1 Commitment Amount, Term Loan Tranche 2 Commitment Amount, Term Loan Commitment Percentage or that provide for the Lenders to receive their Pro Rata Shares of any fees, payments, setoffs or proceeds of Collateral hereunder. It is hereby understood and agreed that all Lenders shall be deemed directly affected by an amendment, waiver or other modification of the type described in the preceding clauses (C), (D), (E), (F) and (G) of the preceding sentence.

Section 11.17 Assignments and Participations.

(a) Assignments.

(i) Any Lender may at any time assign to one or more Eligible Assignees all or any portion of such Lender's Loan together with all related obligations of such Lender hereunder. Except as Agent may otherwise agree, the amount of any such assignment (determined as of the date of the applicable Assignment Agreement or, if a "Trade Date" is specified in such Assignment Agreement, as of such Trade Date) shall be in a minimum aggregate amount equal to $1,000,000 or, if less, the assignor's entire interests in the outstanding Loan; *provided*, *however*, that, in connection with simultaneous assignments to two or more related Approved Funds, such Approved Funds shall be treated as one assignee for purposes of determining compliance with the minimum assignment size referred to above. Borrowers and Agent shall be entitled to continue to deal solely and directly with such Lender in connection with the interests so assigned to an Eligible Assignee until Agent shall have received and accepted an effective Assignment Agreement executed, delivered and fully completed by the applicable parties thereto and a processing fee of $3,500 to be paid by the assigning Lender; *provided*, *however*, that only one processing fee shall be payable in connection with simultaneous assignments to two or more related Approved Funds.

(ii) From and after the date on which the conditions described above have been met, (A) such Eligible Assignee shall be deemed automatically to have become a party hereto and, to the extent of the interests assigned to such Eligible Assignee pursuant to such Assignment Agreement, shall have the rights and obligations of a Lender hereunder, and (B) the assigning Lender, to the extent that rights and obligations hereunder have been assigned by it pursuant to such Assignment Agreement, shall be released from its rights and obligations hereunder (other than those that survive termination pursuant to Section 12.1). Upon the request of the Eligible Assignee (and, as applicable, the assigning Lender) pursuant to an effective Assignment Agreement, each Borrower shall execute and deliver to Agent for delivery to the Eligible Assignee (and, as applicable, the assigning Lender) Notes in the aggregate principal amount of the Eligible Assignee's Loan (and, as applicable, Notes in the principal amount of that portion of the principal amount of the Loan retained by the assigning Lender). Upon receipt by the assigning Lender of such Note, the assigning Lender shall return to Borrower Representative any prior Note held by it.

(iii) Agent, acting solely for this purpose as an agent of Borrower, shall maintain at the office of its servicer located in Bethesda, Maryland a copy of each Assignment Agreement delivered to it and a register for the recordation of the names and addresses of each Lender, and the commitments of, and principal amount of the Loan owing to, such Lender pursuant to the terms hereof (the "**Register**"). The entries in such Register shall be conclusive, absent manifest error, and Borrower, Agent and Lenders may treat each Person whose name is recorded therein pursuant to the terms hereof as a Lender hereunder for all purposes of this Agreement, notwithstanding notice to the contrary. Such Register shall be available for inspection by Borrower and any Lender, at any reasonable time upon reasonable prior notice to Agent. Each Lender that sells a participation shall, acting solely for this purpose as an agent of Borrower maintain a register on which it enters the name and address of each participant and the principal amounts (and stated interest) of each participant's interest in the Obligations (each, a "**Participant Register**"). The entries in the Participant Registers shall be conclusive, absent manifest error. Each Participant Register shall be available for inspection by Borrower and Agent at any reasonable time upon reasonable prior notice to the applicable Lender; *provided*, that no Lender shall have any obligation to disclose all or any portion of the Participant Register (including the identity of any Participant or any information relating to a Participant's interest in any commitments, loans, letters of credit or its other obligations under any Financing Document) to any Person (including Borrower) except to the extent that such disclosure is necessary to establish that such commitment, loan, letter of credit or other obligation is in registered form under Section 5f.103-1(c) of the United States Treasury Regulations. For the avoidance of doubt, Agent (in its capacity as Agent) shall have no responsibility for maintaining a Participant Register.

(iv) Notwithstanding the foregoing provisions of this Section 11.17(a) or any other provision of this Agreement, any Lender may at any time pledge or assign a security interest in all or any portion of its rights under this Agreement to secure obligations of such Lender, including any pledge or assignment to secure obligations to a Federal Reserve Bank; *provided*, *however*, that no such pledge or assignment shall release such Lender from any of its obligations hereunder or substitute any such pledgee or assignee for such Lender as a party hereto.

(v) Notwithstanding the foregoing provisions of this Section 11.17(a) or any other provision of this Agreement, Agent has the right, but not the obligation, to effectuate assignments of Loan via an electronic settlement system acceptable to Agent as designated in writing from time to time to the Lenders by Agent (the "**Settlement Service**"). At any time when Agent elects, in its sole discretion, to implement such Settlement Service, each such assignment shall be effected by the assigning Lender and proposed assignee pursuant to the procedures then in effect under the Settlement Service, which procedures shall be consistent with the other provisions of this Section 11.17(a). Each assigning Lender and proposed Eligible Assignee shall comply with the requirements of the Settlement Service in connection with effecting any assignment of Loan pursuant to the Settlement Service. With the prior written approval of Agent, Agent's approval of such Eligible Assignee shall be deemed to have been automatically granted with respect to any transfer effected through the Settlement Service. Assignments and assumptions of the Loan shall be effected by the provisions otherwise set forth herein until Agent notifies Lenders of the Settlement Service as set forth herein.

(b) Participations. Any Lender may at any time, without the consent of, or notice to, any Borrower or Agent, sell to one or more Persons (other than any Borrower or any Borrower's Affiliates) participating interests in its Loan, commitments or other interests hereunder (any such Person, a "**Participant**"). In the event of a sale by a Lender of a participating interest to a Participant, (i) such Lender's obligations hereunder shall remain unchanged for all purposes, (ii) Borrowers and Agent shall continue to deal solely and directly with such Lender in connection with such Lender's rights and obligations hereunder, and (iii) all amounts payable by each Borrower shall be determined as if such Lender had not sold such participation and shall be paid directly to such Lender. Each Borrower agrees that if amounts outstanding under this Agreement are due and payable (as a result of acceleration or otherwise), each Participant shall be deemed to have the right of set-off in respect of its participating interest in amounts owing under this Agreement to the same extent as if the amount of its participating interest were owing directly to it as a Lender under this Agreement; *provided*, *however*, that such right of set-off shall be subject to the obligation of each Participant to share with Lenders, and Lenders agree to share with each Participant, as provided in Section 11.5.

(c) Replacement of Lenders. Within thirty (30) days after: (i) receipt by Agent of notice and demand from any Lender for payment of additional costs as provided in Section 2.8(d), which demand shall not have been revoked, (ii) any Borrower is required to pay any additional amount to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 2.8(a) through (h), (iii) any Lender is a Defaulted Lender, and the circumstances causing such status shall not have been cured or waived; or (iv) any failure by any Lender to consent to a requested amendment, waiver or modification to any Financing Document in which Required Lenders have already consented to such amendment, waiver or modification but the consent of each Lender, or each Lender affected thereby, is required with respect thereto (each relevant Lender in the foregoing clauses (i) through (iv) being an "**Affected Lender**") each of Borrower Representative and Agent may, at its option, notify such Affected Lender and, in the case of Borrowers' election, Agent, of such Person's intention to obtain, at Borrowers' expense, a replacement Lender ("**Replacement Lender**") for such Lender, which Replacement Lender shall be an Eligible Assignee and, in the event the Replacement Lender is to replace an Affected Lender described in the preceding clause (iv), such Replacement Lender consents to the requested amendment, waiver or modification making the replaced Lender an Affected Lender. In the event Borrowers or Agent, as applicable, obtains a Replacement Lender within ninety (90) days following notice of its intention to do so, the Affected Lender shall sell, at par, and assign all of its Loan and funding commitments hereunder to such Replacement Lender in accordance with the procedures set forth in Section 11.17(a); *provided*, *however*, that (A) Borrowers shall have reimbursed such Lender for its increased costs and additional payments for which it is entitled to reimbursement under Section 2.8(a) through (h), as applicable, of this Agreement through the date of such sale and assignment, and (B) Borrowers shall pay to Agent the $3,500 processing fee in respect of such assignment. In the event that a replaced Lender does not execute an Assignment Agreement pursuant to Section 11.17(a) within five (5) Business Days after receipt by such replaced Lender of notice of replacement pursuant to this Section 11.17(c) and presentation to such replaced Lender of an Assignment Agreement evidencing an assignment pursuant to this Section 11.17(c), such replaced Lender shall be deemed to have consented to the terms of such Assignment Agreement, and any such Assignment Agreement executed by Agent, the Replacement Lender and, to the extent required pursuant to Section 11.17(a), Borrowers, shall be effective for purposes of this Section 11.17(c) and Section 11.17(a). Upon any such assignment and payment, such replaced Lender shall no longer constitute a "**Lender**" for purposes hereof, other than with respect to such rights and obligations that survive termination as set forth in Section 12.1.

(d) Credit Party Assignments. No Credit Party may assign, delegate or otherwise transfer any of its rights or other obligations hereunder or under any other Financing Document without the prior written consent of Agent and each Lender.

Section 11.18 Funding and Settlement Provisions Applicable When Non-Funding Lenders Exist. So long as Agent has not waived the conditions to the funding of Loans set forth in Section 7.2 or Section 2.1, any Lender may deliver a notice to Agent stating that such Lender shall not fund any tranche of the Term Loan due to the non-satisfaction of one or more conditions to funding Loans set forth in Section 7.2 or Section 2.1, and specifying any such non-satisfied conditions. Any Lender delivering any such notice shall become a non-funding Lender (a "**Non-Funding Lender**") for purposes of this Agreement commencing on the Business Day following receipt by Agent of such notice, and shall cease to be a Non-Funding Lender on the date on which such Lender has either revoked the effectiveness of such notice or acknowledged in writing to each of Agent the satisfaction of the condition(s) specified in such notice, or Required Lenders waive the conditions to the funding of such Loans giving rise to such notice by Non-Funding Lender. Each Non-Funding Lender shall remain a Lender for purposes of this Agreement to the extent that such Non-Funding Lender has Term Loans outstanding in excess of Zero Dollars ($0); *provided*, *however*, that during any period of time that any Non-Funding Lender exists, and notwithstanding any provision to the contrary set forth herein, the following provisions shall apply:

(a) For purposes of determining the Pro Rata Share of each Lender under clause (c) of the definition of such term, each Non-Funding Lender shall be deemed to have a Term Loan Commitment Amount as in effect immediately before such Lender became a Non-Funding Lender.

(b) Except as provided in clause (a) above, the Term Loan Commitment Amount of each Non-Funding Lender shall be deemed to be Zero Dollars ($0).

(c) The Term Loan Commitment at any date of determination during such period shall be deemed to be equal to the sum of (i) the aggregate Term Loan Commitment Amounts of all Lenders, other than the Non-Funding Lenders as of such date *plus* (ii) the aggregate principal amount outstanding under the Term Loans of all Non-Funding Lenders as of such date.

ARTICLE 12 - MISCELLANEOUS

Section 12.1 Survival. All agreements, representations and warranties made herein and in every other Financing Document shall survive the execution and delivery of this Agreement and the other Financing Documents. The provisions of Section 2.10 and Articles 11 and 12 shall survive the payment of the Obligations (both with respect to any Lender and all Lenders collectively) and any termination of this Agreement and any judgment with respect to any Obligations, including any final foreclosure judgment with respect to any Security Document, and no unpaid or unperformed, current or future, Obligations will merge into any such judgment.

Section 12.2 No Waivers. No failure or delay by Agent or any Lender in exercising any right, power or privilege under any Financing Document shall operate as a waiver thereof nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power or privilege. The rights and remedies herein and therein provided shall be cumulative and not exclusive of any rights or remedies provided by law. Any reference in any Financing Document to the "continuing" nature of any Event of Default shall not be construed as establishing or otherwise indicating that any Borrower or any other Credit Party has the independent right to cure any such Event of Default, but is rather presented merely for convenience should such Event of Default be waived in accordance with the terms of the applicable Financing Documents.

Section 12.3 Notices.

(a) All notices, requests and other communications to any party hereunder shall be in writing (including prepaid overnight courier, facsimile transmission or similar writing) and shall be given to such party at its address, facsimile number or e-mail address set forth on the signature pages hereof (or, in the case of any such Lender who becomes a Lender after the date hereof, in an assignment agreement or in a notice delivered to Borrower Representative and Agent by the assignee Lender forthwith upon such assignment) or at such other address, facsimile number or e-mail address as such party may hereafter specify for the purpose by notice to Agent and Borrower Representative; *provided*, *however*, that notices, requests or other communications shall be permitted by electronic means only in accordance with the provisions of Section 12.3(b) and (c). Each such notice, request or other communication shall be effective (i) if given by facsimile, when such notice is transmitted to the facsimile number specified by this Section and the sender receives a confirmation of transmission from the sending facsimile machine, or (ii) if given by mail, prepaid overnight courier or any other means, when received or when receipt is refused at the applicable address specified by this Section 12.3(a).

(b) Notices and other communications to the parties hereto may be delivered or furnished by electronic communication (including e-mail and Internet or intranet websites) pursuant to procedures approved from time to time by Agent, *provided*, *however*, that the foregoing shall not apply to notices sent directly to any Lender if such Lender has notified Agent that it is incapable of receiving notices by electronic communication. Agent or Borrower Representative may, in their discretion, agree to accept notices and other communications to them hereunder by electronic communications pursuant to procedures approved by it, *provided*, *however*, that approval of such procedures may be limited to particular notices or communications.

(c) Unless Agent otherwise prescribes, (i) notices and other communications sent to an e-mail address shall be deemed received upon the sender's receipt of an acknowledgment from the intended recipient (such as by the "return receipt requested" function, as available, return e-mail or other written acknowledgment), and (ii) notices or communications posted to an Internet or intranet website shall be deemed received upon the deemed receipt by the intended recipient at its e-mail address as described in the foregoing clause (i) of notification that such notice or communication is available and identifying the website address therefor, *provided*, *however*, that if any such notice or other communication is not sent or posted during normal business hours, such notice or communication shall be deemed to have been sent at the opening of business on the next Business Day.

Section 12.4 Severability. In case any provision of or obligation under this Agreement or any other Financing Document shall be invalid, illegal or unenforceable in any jurisdiction, the validity, legality and enforceability of the remaining provisions or obligations, or of such provision or obligation in any other jurisdiction, shall not in any way be affected or impaired thereby.

Section 12.5 Headings. Headings and captions used in the Financing Documents (including the Exhibits, Schedules and Annexes hereto and thereto) are included for convenience of reference only and shall not be given any substantive effect.

Section 12.6 Confidentiality.

(a) Each Credit Party agrees (i) not to transmit or disclose provisions of any Financing Document to any Person (other than to Borrowers' advisors and officers on a need-to-know basis or as otherwise may be required by Law) without Agent's prior written consent, (ii) to inform all Persons of the confidential nature of the Financing Documents and to direct them not to disclose the same to any other Person and to require each of them to be bound by these provisions.

(b) Agent and each Lender shall hold all non-public information regarding the Credit Parties and their respective businesses identified as such by Borrowers and obtained by Agent or any Lender pursuant to the requirements hereof in accordance with such Person's customary procedures for handling information of such nature, except that disclosure of such information may be made (i) to their respective agents, employees, Subsidiaries, Affiliates, attorneys, auditors, professional consultants, rating agencies, insurance industry associations and portfolio management services, (ii) to prospective transferees or purchasers of any interest in the Loans, Agent or a Lender, but solely for use by such prospective transferee or purchaser to evaluate such interest in the making of such transfer or purchase; *provided*, *however*, that any such Persons are bound by obligations of confidentiality similar to or more stringent than this Section 12.6, (iii) as required by Law, subpoena, judicial order or similar order and in connection with any litigation, (iv) as may be required in connection with the examination, audit or similar investigation of such Person, *provided* that all participants have agreed to keep such information confidential (subject to customary exceptions), and (v) to a Person that is a trustee, investment advisor or investment manager, collateral manager, servicer, noteholder or secured party in a Securitization (as hereinafter defined) in connection with the administration, servicing and reporting on the assets serving as collateral for such Securitization who have agreed to keep such information confidential (subject to customary exceptions). For the purposes of this Section, "**Securitization**" means (A) the pledge of the Loans as collateral security for loans to a Lender, or (B) a public or private offering by a Lender or any of its Affiliates or their respective successors and assigns, of securities which represent an interest in, or which are collateralized, in whole or in part, by the Loans. Confidential information shall include only such information identified as such at the time provided to Agent and shall not include information that either: (y) is in the public domain, or becomes part of the public domain after disclosure to such Person through no fault of such Person, or (z) is disclosed to such Person by a Person other than a Credit Party, *provided*, *however*, Agent does not have actual knowledge that such Person is prohibited from disclosing such information. The obligations of Agent and Lenders under this Section 12.6 shall supersede and replace the obligations of Agent and Lenders under any confidentiality agreement in respect of this financing executed and delivered by Agent or any Lender prior to the date hereof.

Section 12.7 Waiver of Consequential and Other Damages. To the fullest extent permitted by applicable law, no Borrower shall assert, and each Borrower hereby waives, any claim against any Indemnitee (as defined below), on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of this Agreement, any other Financing Document or any agreement or instrument contemplated hereby or thereby, the transactions contemplated hereby or thereby, any Loan or the use of the proceeds thereof. No Indemnitee shall be liable for any damages arising from the use by unintended recipients of any information or other materials distributed by it through telecommunications, electronic or other information transmission systems in connection with this Agreement or the other Financing Documents or the transactions contemplated hereby or thereby.

Section 12.8 GOVERNING LAW; SUBMISSION TO JURISDICTION.

(a) THIS AGREEMENT, EACH NOTE AND EACH OTHER FINANCING DOCUMENT, AND ALL DISPUTES AND OTHER MATTERS RELATING HERETO OR THERETO OR ARISING THEREFROM (WHETHER SOUNDING IN CONTRACT LAW, TORT LAW OR OTHERWISE), SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO CONFLICTS OF LAWS PRINCIPLES (OTHER THAN SECTION 5-1401 OF THE GENERAL OBLIGATIONS LAW).

(b) EACH PARTY HERETO HEREBY CONSENTS TO THE JURISDICTION OF ANY STATE OR FEDERAL COURT LOCATED IN THE STATE OF NEW YORK IN THE CITY OF NEW YORK, BOROUGH OF MANHATTAN, AND IRREVOCABLY AGREES THAT ALL ACTIONS OR PROCEEDINGS ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE OTHER FINANCING DOCUMENTS SHALL BE LITIGATED IN SUCH COURTS. EACH PARTY HERETO EXPRESSLY SUBMITS AND CONSENTS TO THE JURISDICTION OF THE AFORESAID COURTS AND WAIVES ANY DEFENSE OF FORUM NON CONVENIENS. EACH PARTY HERETO HEREBY WAIVES PERSONAL SERVICE OF ANY AND ALL PROCESS AND AGREES THAT ALL SUCH SERVICE OF PROCESS MAY BE MADE UPON SUCH PARTY BY CERTIFIED OR REGISTERED MAIL, RETURN RECEIPT REQUESTED, ADDRESSED TO SUCH PARTY AT THE ADDRESS SET FORTH IN THIS AGREEMENT AND SERVICE SO MADE SHALL BE COMPLETE TEN (10) DAYS AFTER THE SAME HAS BEEN POSTED.

Section 12.9 WAIVER OF JURY TRIAL.

(a) EACH BORROWER, AGENT AND THE LENDERS HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THE FINANCING DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED THEREBY AND AGREES THAT ANY SUCH ACTION OR PROCEEDING SHALL BE TRIED BEFORE A COURT AND NOT BEFORE A JURY. EACH BORROWER, AGENT AND EACH LENDER ACKNOWLEDGES THAT THIS WAIVER IS A MATERIAL INDUCEMENT TO ENTER INTO A BUSINESS RELATIONSHIP, THAT EACH HAS RELIED ON THE WAIVER IN ENTERING INTO THIS AGREEMENT AND THE OTHER FINANCING DOCUMENTS, AND THAT EACH WILL CONTINUE TO RELY ON THIS WAIVER IN THEIR RELATED FUTURE DEALINGS. EACH BORROWER, AGENT AND EACH LENDER WARRANTS AND REPRESENTS THAT IT HAS HAD THE OPPORTUNITY OF REVIEWING THIS JURY WAIVER WITH LEGAL COUNSEL, AND THAT IT KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS. In the event any such action or proceeding is brought or filed in any United States federal court sitting in the State of California or in any state court of the State of California, and the waiver of jury trial set forth in Section 12.9(a) hereof is determined or held to be ineffective or unenforceable, the parties agree that all actions or proceedings shall be resolved by reference to a private judge sitting without a jury, pursuant to California Code of Civil Procedure Section 638, before a mutually acceptable referee or, if the parties cannot agree, a referee selected by the Presiding Judge of the Los Angeles County, California. Such proceeding shall be conducted in Los Angeles County, California, with California rules of evidence and discovery applicable to such proceeding. In the event any actions or proceedings are to be resolved by judicial reference, any party may seek from any court having jurisdiction thereover any prejudgment order, writ or other relief and have such prejudgment order, writ or other relief enforced to the fullest extent permitted by Law notwithstanding that all actions or proceedings are otherwise subject to resolution by judicial reference.

Section 12.10 Publication; Advertisement.

(a) Publication. No Credit Party will directly or indirectly publish, disclose or otherwise use in any public disclosure, advertising material, promotional material, press release or interview, any reference to the name, logo or any trademark of MCF or any of its Affiliates or any reference to this Agreement or the financing evidenced hereby, in any case except (i) as required by Law, subpoena or judicial or similar order, in which case the applicable Credit Party shall give Agent prior written notice of such publication or other disclosure, or (ii) with MCF's prior written consent.

(b) Advertisement. Each Lender and each Credit Party hereby authorizes MCF to publish the name of such Lender and Credit Party, the existence of the financing arrangements referenced under this Agreement, the primary purpose and/or structure of those arrangements, the amount of credit extended under each facility, the title and role of each party to this Agreement, and the total amount of the financing evidenced hereby in any "tombstone", comparable advertisement or press release which MCF elects to submit for publication. In addition, each Lender and each Credit Party agrees that MCF may provide lending industry trade organizations with information necessary and customary for inclusion in league table measurements after the Closing Date. With respect to any of the foregoing, MCF shall provide Borrowers with an opportunity to review and confer with MCF regarding the contents of any such tombstone, advertisement or information, as applicable, prior to its submission for publication and, following such review period, MCF may, from time to time, publish such information in any media form desired by MCF, until such time that Borrowers shall have requested MCF cease any such further publication.

Section 12.11 Counterparts; Integration. This Agreement and the other Financing Documents may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. Signatures by facsimile or by electronic mail delivery of an electronic version of any executed signature page shall bind the parties hereto. In furtherance of the foregoing, the words "execution", "signed", "signature", "delivery" and words of like import in or relating to any document to be signed in connection with this Agreement and the transactions contemplated hereby or thereby shall be deemed to include Electronic Signatures, deliveries or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature, physical delivery thereof or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act. As used herein, "**Electronic Signature**" means an electronic sound, symbol, or process attached to, or associated with, a contract or other record and adopted by a Person with the intent to sign, authenticate or accept such contract or other record. This Agreement and the other Financing Documents constitute the entire agreement and understanding among the parties hereto and supersede any and all prior agreements and understandings, oral or written, relating to the subject matter hereof.

Section 12.12 No Strict Construction. The parties hereto have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the parties hereto and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any provisions of this Agreement.

Section 12.13 Lender Approvals. Unless expressly provided herein to the contrary, any approval, consent, waiver or satisfaction of Agent or Lenders with respect to any matter that is the subject of this Agreement, the other Financing Documents may be granted or withheld by Agent and Lenders in their sole and absolute discretion and credit judgment.

Section 12.14 Expenses; Indemnity.

(a) Except with respect to Indemnified Taxes, Other Taxes and Excluded Taxes, which shall be governed exclusively by Section 2.8, Borrowers hereby agree to promptly pay (i) all reasonable costs and expenses of Agent (including, without limitation, the fees, costs and expenses of counsel to, and independent appraisers and consultants retained by Agent subject to the limitations set forth herein) in connection with the examination, review, due diligence investigation, documentation, negotiation, closing and syndication of the transactions contemplated by the Financing Documents, in connection with the performance by Agent of its rights and remedies under the Financing Documents and in connection with the continued administration of the Financing Documents including (A) any amendments, modifications, consents and waivers to and/or under any and all Financing Documents, and (B) any periodic public record searches conducted by or at the request of Agent (including, without limitation, title investigations, UCC searches, fixture filing searches, judgment, pending litigation and tax lien searches and searches of applicable corporate, limited liability, partnership and related records concerning the continued existence, organization and good standing of certain Persons); (ii) without limitation of the preceding clause (i), all reasonable costs and expenses of Agent in connection with the creation, perfection and maintenance of Liens pursuant to the Financing Documents; (iii) without limitation of the preceding clause (i), all costs and expenses of Agent in connection with (A) protecting, storing, insuring, handling, maintaining or selling any Collateral, (B) any litigation, dispute, suit or proceeding relating to any Financing Document, other than disputes solely among Lenders and/or Agent (other than any claims against such person in its capacity or in fulfilling its role as Agent, arranger or any similar role hereunder) to the extent such disputes do not arise from any act or omission of any Credit Party or of any Affiliate of a Credit Party, and (C) any workout, collection, bankruptcy, insolvency and other enforcement proceedings under any and all of the Financing Documents; (iv) without limitation of the preceding clause (i), all reasonable costs and expenses of Agent in connection with Agent's reservation of funds in anticipation of the funding of the initial Loans to be made hereunder; and (v) all costs and expenses incurred by Lenders in connection with any litigation, dispute, suit or proceeding relating to any Financing Document, other than disputes solely among Lenders and/or Agent (other than any claims against such person in its capacity or in fulfilling its role as Agent, arranger or any similar role hereunder) to the extent such disputes do not arise from any act or omission of any Credit Party or of any Affiliate of a Credit Party, and in connection with any workout, collection, bankruptcy, insolvency and other enforcement proceedings under any and all Financing Documents, whether or not Agent or Lenders are a party thereto.

(b) Each Borrower hereby agrees to indemnify, pay and hold harmless Agent and Lenders and the officers, directors, employees, trustees, agents, investment advisors and investment managers, collateral managers, servicers, and counsel of Agent and Lenders (collectively called the "**Indemnitees**") from and against any and all liabilities, obligations, losses, damages, penalties, actions, judgments, suits, claims, costs, expenses and disbursements of any kind or nature whatsoever (including the documented out-of-pocket fees and disbursements of counsel for such Indemnitee) in connection with any investigative, response, remedial, administrative or judicial matter or proceeding, whether or not such Indemnitee shall be designated a party thereto and including any such proceeding initiated by or on behalf of a Credit Party, and the reasonable expenses of investigation by engineers, environmental consultants and similar technical personnel and any commission, fee or compensation claimed by any broker (other than any broker retained by Agent or Lenders) asserting any right to payment for the transactions contemplated hereby, which may be imposed on, incurred by or asserted against such Indemnitee as a result of or in connection with the transactions contemplated hereby or by the other Financing Documents (including (i)(A) as a direct or indirect result of the presence on or under, or escape, seepage, leakage, spillage, discharge, emission or release from, any property now or previously owned, leased or operated by Borrower, any Subsidiary or any other Person of any Hazardous Materials, (B) arising out of or relating to the offsite disposal of any materials generated or present on any such property, or (C) arising out of or resulting from the environmental condition of any such property or the applicability of any governmental requirements relating to Hazardous Materials, whether or not occasioned wholly or in part by any condition, accident or event caused by any act or omission of Borrower or any Subsidiary, and (ii) proposed and actual extensions of credit under this Agreement) and the use or intended use of the proceeds of the Loans, except that Borrower shall have no obligation hereunder to an Indemnitee with respect to any liability resulting from the gross negligence or willful misconduct of such Indemnitee, as determined by a final non-appealable judgment of a court of competent jurisdiction. To the extent that the undertaking set forth in the immediately preceding sentence may be unenforceable, Borrower shall contribute the maximum portion which it is permitted to pay and satisfy under applicable Law to the payment and satisfaction of all such indemnified liabilities incurred by the Indemnitees or any of them. This Section 12.14(b) shall not apply with respect to Taxes other than any Taxes that represent losses, claims, damages, etc. arising from any non-Tax claim

(c) Notwithstanding any contrary provision in this Agreement, the obligations of Borrowers under this Section 12.14 shall survive the payment in full of the Obligations and the termination of this Agreement. NO INDEMNITEE SHALL BE RESPONSIBLE OR LIABLE TO THE BORROWERS OR TO ANY OTHER PARTY TO ANY FINANCING DOCUMENT, ANY SUCCESSOR, ASSIGNEE OR THIRD PARTY BENEFICIARY OR ANY OTHER PERSON ASSERTING CLAIMS DERIVATIVELY THROUGH SUCH PARTY, FOR INDIRECT, PUNITIVE, EXEMPLARY OR CONSEQUENTIAL DAMAGES WHICH MAY BE ALLEGED AS A RESULT OF CREDIT HAVING BEEN EXTENDED, SUSPENDED OR TERMINATED UNDER THIS AGREEMENT OR ANY OTHER FINANCING DOCUMENT OR AS A RESULT OF ANY OTHER TRANSACTION CONTEMPLATED HEREUNDER OR THEREUNDER.

(d) Each Borrower for itself and all endorsers, guarantors and sureties and their heirs, legal representatives, successors and assigns, hereby further specifically waives any rights that it may have under Section 1542 of the California Civil Code (to the extent applicable), which provides as follows: "A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR," and further waives any similar rights under applicable Laws.

Section 12.15 Reinstatement. This Agreement shall remain in full force and effect and continue to be effective should any petition or other proceeding be filed by or against any Credit Party for liquidation or reorganization, should any Credit Party become insolvent or make an assignment for the benefit of any creditor or creditors or should an interim receiver, receiver, receiver and manager or trustee be appointed for all or any significant part of any Credit Party's assets, and shall continue to be effective or to be reinstated, as the case may be, if at any time payment and performance of the Obligations, or any part thereof, is, pursuant to applicable law, rescinded or reduced in amount, or must otherwise be restored or returned by any obligee of the Obligations, whether as a fraudulent preference reviewable transaction or otherwise, all as though such payment or performance had not been made. In the event that any payment, or any part thereof, is rescinded, reduced, restored or returned, the Obligations shall be reinstated and deemed reduced only by such amount paid and not so rescinded, reduced, restored or returned.

Section 12.16 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of Borrowers and Agent and each Lender and their respective successors and permitted assigns.

Section 12.17 USA PATRIOT Act Notification. Agent (for itself and not on behalf of any Lender) and each Lender hereby notifies Borrowers that pursuant to the requirements of the USA PATRIOT Act, it is required to obtain, verify and record certain information and documentation that identifies Borrowers, which information includes the name and address of Borrower and such other information that will allow Agent or such Lender, as applicable, to identify Borrowers in accordance with the USA PATRIOT Act.

Section 12.18 Acknowledgement and Consent to Bail-In of EEA Financial Institutions. Notwithstanding anything to the contrary in any Financing Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any EEA Financial Institution arising under any Financing Document, to the extent such liability is unsecured, may be subject to the write-down and conversion powers of an EEA Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by an EEA Resolution Authority to any such liabilities arising hereunder which may be payable to it by any party hereto that is an EEA Financial Institution; and

(b) the effects of any Bail-In Action on any such liability, including, if applicable:

(i) a reduction in full or in part or cancellation of any such liability;

(ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such EEA Financial Institution, its parent undertaking, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Financing Document; or

(iii) the variation of the terms of such liability in connection with the exercise of the write-down and conversion powers of any EEA Resolution Authority.

[SIGNATURES APPEAR ON FOLLOWING PAGE(S)]

IN WITNESS WHEREOF, intending to be legally bound, each of the parties have caused this Agreement to be executed on the day and year first above mentioned.

BORROWERS:

AKOYA BIOSCIENCES, INC.

By: /s/ Brian McKelligon
Name: Brian McKelligon
Title: Chief Executive Officer

Address:

1505 O'Brien Drive, Suite A-1
Menlo Park, CA 94025
Attn: Brian McKelligon, CEO

E-
Mail: bmckelligon@akoyabio.com

AGENT:

MIDCAP FINANCIAL TRUST

By: Apollo Capital Management, L.P., its investment manager

By: Apollo Capital Management GP, LLC, its general partner

By: /s/ Maurice Amsellem
Name: Maurice Amsellem
Title: Authorized Signatory

Address:

c/o MidCap Financial Services, LLC, as servicer
7255 Woodmont Avenue, Suite 300
Bethesda, Maryland 20814
Attn: Account Manager for Akoya transaction
Facsimile: 301-941-1450
E-mail: notices@midcapfinancial.com

with a copy to:

c/o MidCap Financial Services, LLC, as servicer
7255 Woodmont Avenue, Suite 300
Bethesda, Maryland 20814
Attn: General Counsel
Facsimile: 301-941-1450
E-mail: legalnotices@midcapfinancial.com

Payment Account Designation:

SunTrust Bank, N.A.
ABA #: 061000104
Account Name: MidCap Financial Trust – Collections
Account #: 1000113400435
Attention: Akoya Facility

LENDER:

MIDCAP FINANCIAL TRUST

By: Apollo Capital Management, L.P., its investment manager

By: Apollo Capital Management GP, LLC, its general partner

By: Maurice Amsellem
Name: Maurice Amsellem
Title: Authorized Signatory

Address:

c/o MidCap Financial Services, LLC, as servicer
7255 Woodmont Avenue, Suite 300
Bethesda, Maryland 20814
Attn: Account Manager for Akoya transaction
Facsimile: 301-941-1450
E-mail: notices@midcapfinancial.com

with a copy to:

c/o MidCap Financial Services, LLC, as servicer
7255 Woodmont Avenue, Suite 300
Bethesda, Maryland 20814
Attn: General Counsel
Facsimile: 301-941-1450
E-mail: legalnotices@midcapfinancial.com

LENDER:

APOLLO INVESTMENT CORPORATION

By: Apollo Investment Management, L.P.,
as Advisor

By: ACC Management, LLC, as its General Partner

By: /s/ Joseph D. Glatt
Name: Joseph D. Glatt
Title: Vice President

ANNEXES, EXHIBITS AND SCHEDULES

ANNEXES

Annex A	Commitment Annex

EXHIBITS

Exhibit A	[Reserved]
Exhibit B	Form of Compliance Certificate
Exhibit C	[Reserved]
Exhibit D	Form of Notice of Borrowing
Exhibit E-1	Form of U.S. Tax Compliance Certificate
Exhibit E-2	Form of U.S. Tax Compliance Certificate
Exhibit E-3	Form of U.S. Tax Compliance Certificate
Exhibit E-4	Form of U.S. Tax Compliance Certificate
Exhibit F	Closing Checklist

SCHEDULES

Schedule 2.1	Scheduled Principal Payments for Term Loan
Schedule 3.1	Existence, Organizational ID Numbers, Foreign Qualification, Prior Names
Schedule 3.4	Capitalization
Schedule 3.6	Litigation
Schedule 3.17	Material Contracts
Schedule 3.18	Environmental Compliance
Schedule 3.19	Intellectual Property
Schedule 4.9	Litigation, Governmental Proceedings and Other Notice Events
Schedule 4.17	Products
Schedule 5.1	Debt; Contingent Obligations
Schedule 5.2	Liens
Schedule 5.7	Permitted Investments
Schedule 5.8	Affiliate Transactions
Schedule 5.11	Business Description
Schedule 5.14	Deposit Accounts and Securities Accounts
Schedule 6.1	Minimum Net Revenue
Schedule 7.4	Post-Closing Obligations
Schedule 9.1	Collateral
Schedule 9.2(b)	Location of Collateral
Schedule 9.2(d)	Chattel Paper, Letter of Credit Rights, Commercial Tort Claims, Instruments, Documents, Investment Property

Annex A to Credit Agreement (Commitment Annex)

Lender	Term Loan Tranche 1 Commitment Amount	Term Loan Tranche 1 Commitment Percentage	Term Loan Tranche 2 Commitment Amount	Term Loan Tranche 2 Commitment Percentage
MidCap Financial Trust	$ 22,750,000	70%	3,500,000	70%
Apollo Investment Corporation	$ 9,750,000	30%	1,500,000	30%
TOTALS	**$ 32,500,000.00**	**100%**	**$ 5,000,000.00**	**100%**

Exhibit A to Credit Agreement (Reserved)

Exhibit B to Credit Agreement (Form of Compliance Certificate)

COMPLIANCE CERTIFICATE

This Compliance Certificate is given by _____, a Responsible Officer of _____ (the "**Borrower Representative**"), pursuant to that certain Credit and Security Agreement (Term Loan) dated as of _____, 202__ among the Borrower Representative, _____ and any additional Borrower that may hereafter be added thereto (collectively, "**Borrowers**"), MidCap Financial Trust, individually as a Lender and as Agent, and the financial institutions or other entities from time to time parties hereto, each as a Lender (as such agreement may have been amended, restated, supplemented or otherwise modified from time to time, the "**Credit Agreement**"). Capitalized terms used herein without definition shall have the meanings set forth in the Credit Agreement.

The undersigned Responsible Officer hereby certifies to Agent and Lenders that:

(a) the financial statements delivered with this certificate in accordance with Section 4.1 of the Credit Agreement fairly present in all material respects the results of operations and financial condition of Borrowers and their Consolidated Subsidiaries as of the dates and the accounting period covered by such financial statements;

(b) the representations and warranties of each Credit Party contained in the Financing Documents are true, correct and complete in all material respects on and as of the date hereof, except to the extent that any such representation or warranty relates to a specific date in which case such representation or warranty shall be true and correct in all material respects as of such earlier date; *provided*, *however*, in each case, such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof;

(c) I have reviewed the terms of the Credit Agreement and have made, or caused to be made under my supervision, a review in reasonable detail of the transactions and conditions of Borrowers and their Consolidated Subsidiaries during the accounting period covered by such financial statements, and such review has not disclosed the existence during or at the end of such accounting period, and I have no knowledge of the existences as of the date hereof, of any condition or event that constitutes a Default or Event of Default, except as set forth in **Schedule 1** hereto, which includes a description of the nature and period of existence of such Default or an Event of Default and what action Borrowers have taken, are undertaking and propose to take with respect thereto;

(d) except as noted on **Schedule 2** attached hereto, Schedule 9.2(b) to the Credit Agreement contains a complete and accurate list of all business locations of Borrowers and Guarantors and all names under which Borrowers and Guarantors currently conduct business and required to be disclosed pursuant to Article 9 of the Credit Agreement; **Schedule 2** specifically notes any changes in the names under which any Borrower or Guarantors conduct business;

(e) except as noted on **Schedule 3** attached hereto, the undersigned has no knowledge of (i) any federal or state tax liens having been filed against any Borrower, Guarantor or any Collateral, or (ii) any failure of any Borrower or any Guarantors to make required payments of withholding or other tax obligations of any Borrower or any Guarantors during the accounting period to which the attached statements pertain or any subsequent period that are required to be made in accordance with Section 4.2 of the Credit Agreement;

(f) except as noted on **Schedule 4** attached hereto, or as the Borrower Representative may have notified Agent on any **Schedule 4** to any previous Compliance Certificate, Schedule 5.14 to the Credit Agreement contains a complete and accurate statement of all deposit accounts or investment accounts maintained by Borrowers and Guarantors;

(g) except as noted on **Schedule 5** attached hereto, or as the Borrower Representative may have notified Agent on any **Schedule 5** to any previous Compliance Certificate, Schedule 3.19 to the Credit Agreement is true and correct in all material respects;

(h) except as noted on **Schedule 6** attached hereto, or as the Borrower Representative may have notified Agent on any **Schedule 6** to any previous Compliance Certificate, no Borrower or Guarantor has acquired, by purchase or otherwise, any Chattel Paper, Letter of Credit Rights, Instruments, Documents or Investment Property that is required to be disclosed pursuant to Section 9.2 of the Credit Agreement;

(i) except as noted on **Schedule 7** attached hereto, or as the Borrower Representative may have notified Agent on any **Schedule 7** to any previous Compliance Certificate, no Borrower or Guarantor is aware of any commercial tort claim that is required to be disclosed pursuant to Section 9.2 of the Credit Agreement;

(j) The aggregate amount of cash and Cash Equivalents held by Borrowers (on a consolidated basis) as of the date hereof is $[_____];

(k) the aggregate amount of cash and Cash Equivalents held by the Restricted Foreign Subsidiaries as of the date hereof is $_____(or the equivalent thereof in foreign currency).

(l) Net Revenue of Borrowers for the relevant Defined Period is equal to $[_____];

(m) Borrowers and Guarantor are [**NOT**] in compliance with the covenants contained in Article 6 of the Credit Agreement, and in any Guarantee constituting a part of the Financing Documents, as demonstrated by the calculation of such covenants below, except as set forth below; in determining such compliance, the following calculations have been made: [See attached worksheets]. Such calculations and the certifications contained therein are true, correct and complete; and

The foregoing certifications and computations are made as of _____, 202__ (end of month) and as of _____, 202__.

Sincerely,

AKOYA BIOSCIENCES, INC.

By: _____
Name: _____
Title: _____

Exhibit C to Credit Agreement (Reserved)

Exhibit D to Credit Agreement (Form of Notice of Borrowing)

NOTICE OF BORROWING

This Notice of Borrowing is given by _____, a Responsible Officer of Akoya Biosciences, Inc. (the "**Borrower Representative**"), pursuant to that certain Credit and Security Agreement (Term Loan) dated as of _____, 202__ among the Borrower Representative, _____ and any additional Borrower that may hereafter be added thereto (collectively, "**Borrowers**"), MidCap Financial Trust, individually as a Lender and as Agent, and the financial institutions or other entities from time to time parties hereto, each as a Lender (as such agreement may have been amended, restated, supplemented or otherwise modified from time to time, the "**Credit Agreement**"). Capitalized terms used herein without definition shall have the meanings set forth in the Credit Agreement.

The undersigned Responsible Officer hereby gives notice to Agent of Borrower Representative's request to borrow $_____ on _____, 2020.

The undersigned officer hereby certifies that, both before and after giving effect to the request above (a) each of the conditions precedent set forth in Section 7.2 have been satisfied, (b) all of the representations and warranties contained in the Credit Agreement and the other Financing Documents are true, correct and complete as of the date hereof, except to the extent such representation or warranty relates to a specific date, in which case such representation or warranty is true, correct and complete as of such earlier date, and (c) no Default or Event of Default has occurred and is continuing on the date hereof.

IN WITNESS WHEREOF, the undersigned officer has executed and delivered this Notice of Borrowing this ____ day of _____, 2020

Sincerely,

[BORROWER REPRESENTATIVE]

By: _____
Name: _____
Title: _____

Exhibit E-1 to Credit Agreement (Form of U.S. Tax Compliance Certificate)

U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Lenders That Are Not Partnerships For U.S. Federal Income Tax Purposes)

This U.S. Tax Compliance Certificate is given pursuant to that certain Credit and Security Agreement (Term Loan) dated as of October 27, 2020 among the Borrower Representative, and any additional Borrower that may hereafter be added thereto (collectively, "**Borrowers**"), MidCap Financial Trust, individually as a Lender and as Agent, and the financial institutions or other entities from time to time parties hereto, each as a Lender (as such agreement may have been amended, restated, supplemented or otherwise modified from time to time, the "**Credit Agreement**"). Capitalized terms used herein without definition shall have the meanings set forth in the Credit Agreement.

Pursuant to the provisions of Section 2.8(c) of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the Loan(s) (as well as any Note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of any Borrower within the meaning of Section 871(h)(3)(B) of the Code and (iv) it is not a controlled foreign corporation related to any Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished Agent and the Borrower Representative with a certificate of its non-U.S. Person status on IRS Form W-8BEN or IRS Form W-8BEN-E. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Borrower Representative and Agent, and (2) the undersigned shall have at all times furnished the Borrower Representative and Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

[NAME OF LENDER]

By: _____
Name:
Title:

Date: _____ __, 20[ ]

Exhibit E-2 to Credit Agreement (Form of U.S. Tax Compliance Certificate)

U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Participants That Are Not Partnerships For U.S. Federal Income Tax Purposes)

This U.S. Tax Compliance Certificate is given pursuant to that certain Credit and Security Agreement (Term Loan) dated as of October 27, 2020 among the Borrower Representative, and any additional Borrower that may hereafter be added thereto (collectively, "**Borrowers**"), MidCap Financial Trust, individually as a Lender and as Agent, and the financial institutions or other entities from time to time parties hereto, each as a Lender (as such agreement may have been amended, restated, supplemented or otherwise modified from time to time, the "**Credit Agreement**"). Capitalized terms used herein without definition shall have the meanings set forth in the Credit Agreement.

Pursuant to the provisions of Section 2.8(c) of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the participation in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of any Borrower within the meaning of Section 871(h)(3)(B) of the Code, and (iv) it is not a controlled foreign corporation related to any Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished its participating Lender with a certificate of its non-U.S. Person status on IRS Form -8BEN or IRS Form W-8BEN-E. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender in writing, and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

[NAME OF PARTICIPANT]

By: _____
Name:
Title:

Date: _____ __, 20[ ]

Exhibit E-3 to Credit Agreement (Form of U.S. Tax Compliance Certificate)

U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Participants That Are Partnerships For U.S. Federal Income Tax Purposes)

This U.S. Tax Compliance Certificate is given pursuant to that certain Credit and Security Agreement (Term Loan) dated as of October 27, 2020 among the Borrower Representative, and any additional Borrower that may hereafter be added thereto (collectively, "**Borrowers**"), MidCap Financial Trust, individually as a Lender and as Agent, and the financial institutions or other entities from time to time parties hereto, each as a Lender (as such agreement may have been amended, restated, supplemented or otherwise modified from time to time, the "**Credit Agreement**"). Capitalized terms used herein without definition shall have the meanings set forth in the Credit Agreement.

Pursuant to the provisions of Section 2.8(c) of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the participation in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such participation, (iii) with respect such participation, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a ten percent shareholder of any Borrower within the meaning of Section 871(h)(3)(B) of the Code and (v) none of its direct or indirect partners/members is a controlled foreign corporation related to any Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished its participating Lender with IRS Form W-8IMY accompanied by one of the following forms from each of its partners/members that is claiming the portfolio interest exemption: (i) an IRS Form W-8BEN or IRS Form W-8BEN-E or (ii) an IRS Form W-8IMY accompanied by an IRS Form W-8BEN or IRS Form W-8BEN-E from each of such partner's/member's beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

[NAME OF PARTICIPANT]

By: _____
Name:
Title:

Date: _____ __, 20[ ]

Exhibit E-4 to Credit Agreement (Form of U.S. Tax Compliance Certificate)

U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Lenders That Are Partnerships For U.S. Federal Income Tax Purposes)

This U.S. Tax Compliance Certificate is given pursuant to that certain Credit and Security Agreement (Term Loan) dated as of October 27, 2020 among the Borrower Representative, and any additional Borrower that may hereafter be added thereto (collectively, "**Borrowers**"), MidCap Financial Trust, individually as a Lender and as Agent, and the financial institutions or other entities from time to time parties hereto, each as a Lender (as such agreement may have been amended, restated, supplemented or otherwise modified from time to time, the "**Credit Agreement**"). Capitalized terms used herein without definition shall have the meanings set forth in the Credit Agreement.

Pursuant to the provisions of Section 2.8(c) of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the Loan(s) (as well as any Note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such Loan(s) (as well as any Note(s) evidencing such Loan(s)), (iii) with respect to the extension of credit pursuant to this Credit Agreement or any other Financing Document, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a ten percent shareholder of any Borrower within the meaning of Section 871(h)(3)(B) of the Code and (v) none of its direct or indirect partners/members is a controlled foreign corporation related to any Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished Agent and the Borrower Representative with IRS Form W-8IMY accompanied by one of the following forms from each of its partners/members that is claiming the portfolio interest exemption: (i) an IRS Form W-8BEN or IRS Form W-8BEN-E or (ii) an IRS Form W-8IMY accompanied by an IRS Form W-8BEN or IRS Form W-8BEN-E from each of such partner's/member's beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Borrower Representative and Agent, and (2) the undersigned shall have at all times furnished the Borrower Representative and Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

[NAME OF LENDER]

By: _____
Name:
Title:

Date: _____ __, 20[ ]

Exhibit F – Form of Closing Checklist

[*See attached*]

AKOYA BIOSCIENCES, INC.

$37,500,000 TERM LOAN
by MIDCAP FINANCIAL TRUST AND ITS AFFILIATES

CLOSING CHECKLIST

Key:

B **Borrower – Akoya Biosciences, Inc. and certain of its direct and indirect Subsidiaries**

BC **Borrower's Counsel – DLA Piper LLP**

L **Lenders – MidCap Financial Trust and Others**

LC **MCF's Counsel – Hogan Lovells US LLP**

Closing Item

I. TERM LOAN DOCUMENTS

C. Perfection Certificate
D. Credit and Security Agreement (Term Loan)
   (i) Schedules
   (ii) Exhibits
E. UCC-1 Financing Statement(s)
F. Stock Pledge Agreement
G. Intellectual Property Security Agreement
H. Fee Letter
I. Solvency Certificate
J. Legal Opinion

II. ORGANIZATIONAL DOCUMENTS

A. Organizational Chart / Cap Table
B. Amendment to Organizational
   Documents to move redemption right outside Credit Agreement term
C. General Certificate of Secretary of each Credit Party, with Exhibits:
   - Formation Document/Articles
   - Governing Agreement/Bylaws
   - Incumbency Certificate
   - Authorizing Resolutions
   - Good Standing Certificate
   - Foreign Qualification to Do Business

Closing Item

III. FINANCIAL, LIEN AND KYC DILIGENCE

A. UCC, Lien and Litigation Searches
B. Intellectual Property Searches
C. Certified Financial Statements and other financial diligence
D. Name Verification and Background Checks for Principals
E. ECOA Notice

IV. LOAN AND LEASE DILIGENCE AND OTHER MATERIAL CONTRACTS

A. Leases for Principal Place of Business, Distribution Centers and Warehouses
B. Other Material Contracts
   - Material Licenses
C. Other diligence, including documents related to material permits, government contracts, etc., as required

V. FUNDING DOCUMENTS AND DELIVERABLES

A. Innovatus Payoff Letter
   (i) UCC-3 Terminations
   (ii) DACA Terminations
   (iii) Landlord Agreement Terminations
   (iv) IP Security Terminations
   (v) Bailee Agreement Terminations
B. Loan Disbursement Statement
C. Notice(s) of Borrowing
D. Receipt of Stock Certificates and associated stock powers, as applicable
E. Insurance Certificates

Exhibit 10.15

AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT

THIS AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT (this "**Agreement**"), is made as of the 27th day of September, 2019, by and among Akoya Biosciences, Inc., a Delaware corporation (the "**Company**"), and each of the investors listed on Schedule A hereto, each of which is referred to in this Agreement as an "**Investor**".

RECITALS

WHEREAS, the Company and the holders of capital stock of the Company previously entered into that certain Amended and Restated Investors' Rights Agreement dated as of September 26, 2018 ("**Prior Agreement**");

WHEREAS, the Company and the Investors purchasing Series D Preferred Stock (the "**Series D Investors**") are parties to the Series D Preferred Stock Purchase Agreement of even date herewith (the "**Purchase Agreement**"); and

WHEREAS, in order to induce the Company to enter into the Purchase Agreement and to induce the Series D Investors to invest funds in the Company pursuant to the Purchase Agreement, the Investors and the Company hereby agree that this Agreement shall govern the rights of the Investors to cause the Company to register shares of Common Stock issuable to the Investors, to receive certain information from the Company, and to participate in future equity offerings by the Company, and shall govern certain other matters as set forth in this Agreement.

AGREEMENT

NOW, THEREFORE, the parties hereby agree as follows:

1. Definitions. For purposes of this Agreement:

1.1 "**Affiliate**" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by or is under common control with such Person, including without limitation any general partner, managing member, officer or director of such Person or any venture capital or other investment fund now or hereafter existing that is controlled by one or more general partners or managing members of, or shares the same management company or investment advisor with, such Person.

1.2 "**Board of Directors**" means the Board of Directors of the Company.

1.3 "**Common Stock**" means shares of the Company's common stock, par value $0.00001 per share.

1.4 "**Damages**" means any loss, damage, claim or liability (joint or several) to which a party hereto may become subject under the Securities Act, the Exchange Act or other federal or state law, insofar as such loss, damage, claim or liability (or any action in respect thereof) arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in any registration statement of the Company, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto; (ii) an omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading; or (iii) any violation or alleged violation by the indemnifying party (or any of its agents or Affiliates) of the Securities Act, the Exchange Act, any state securities law or any rule or regulation promulgated under the Securities Act, the Exchange Act or any state securities law.

1.5 "**Derivative Securities**" means any securities or rights convertible into, or exercisable or exchangeable for (in each case, directly or indirectly), Common Stock, including options and warrants.

1.6 "**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

1.7 "**Excluded Registration**" means (i) a registration relating to the sale of securities to employees of the Company or a subsidiary pursuant to a stock option, stock purchase, or similar plan; (ii) a registration relating to an SEC Rule 145 transaction; (iii) a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities; or (iv) a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered.

1.8 "**Form S-1**" means such form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC.

1.9 "**Form S-3**" means such form under the Securities Act as in effect on the date hereof or any registration form under the Securities Act subsequently adopted by the SEC that permits incorporation of substantial information by reference to other documents filed by the Company with the SEC.

1.10 "**GAAP**" means generally accepted accounting principles in the United States.

1.11 "**Holder**" means any holder of Registrable Securities who is a party to this Agreement.

1.12 "**Immediate Family Member**" means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law or sister-in-law, including adoptive relationships, of a natural person referred to herein.

1.13 "**Initiating Holders**" means, collectively, Holders who properly initiate a registration request under this Agreement.

1.14 "**IPO**" means the Company's first underwritten public offering of its Common Stock under the Securities Act.

1.15 "**Key Employee**" means any officer or other executive-level employee (including, division director and vice president-level positions) of the Company as well as any employee who, either alone or in concert with others, develops, invents, programs or designs any Company Intellectual Property (as defined in the Purchase Agreement).

1.16 "**New Securities**" means, collectively, equity securities of the Company, whether or not currently authorized, as well as rights, options, or warrants to purchase such equity securities, or securities of any type whatsoever that are, or may become, convertible or exchangeable into or exercisable for such equity securities.

1.17 "**Person**" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

1.18 "**Registrable Securities**" means (i) the Common Stock issuable or issued upon conversion of the Series D Preferred Stock, Series C Preferred Stock or the Series B Preferred Stock; (ii) any Common Stock issued or issuable (directly or indirectly) upon conversion and/or exercise of any other securities of the Company, acquired by the Series D Investors, Series C Investors or the Series B Investors after the date hereof; (iii) any Common Stock issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, the shares referenced in clauses (i) and (ii) above; excluding in all cases, however, any Registrable Securities sold by a Person in a transaction in which the applicable rights under this Agreement are not assigned pursuant to Section 6.1, and excluding for purposes of Section 2 any shares for which registration rights have terminated pursuant to Section 2.13 of this Agreement.

1.19 "**Registrable Securities then outstanding**" means the number of shares of Common Stock determined by adding the number of shares of outstanding Common Stock that are Registrable Securities and the number of shares of Common Stock issuable (directly or indirectly) pursuant to then exercisable and/or convertible securities that are Registrable Securities.

1.20 "**Restated Certificate**" means the Amended and Restated Certificate of Incorporation of the Company.

1.21 "**Restricted Securities**" means the securities of the Company required to be notated with the legend set forth in Section 2.12(b) hereof.

1.22 "**SEC**" means the Securities and Exchange Commission.

1.23 "**SEC Rule 144**" means Rule 144 promulgated by the SEC under the Securities Act.

1.24 "**SEC Rule 145**" means Rule 145 promulgated by the SEC under the Securities Act.

1.25 "**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

1.26 "**Selling Expenses**" means all underwriting discounts, selling commissions, and stock transfer taxes applicable to the sale of Registrable Securities, and fees and disbursements of counsel for any Holder, except for the fees and disbursements of the Selling Holder Counsel borne and paid by the Company as provided in Section 2.6.

1.27 "**Series A Preferred Stock**" means shares of the Company's Series A Preferred Stock, par value $0.00001 per share.

1.28 "**Series B Investor**" means an Investor holding Series B Preferred Stock.

1.29 "**Series B Preferred Stock**" means shares of the Company's Series B Preferred Stock, par value $0.00001 per share.

1.30 "**Series C Investor**" means an Investor holding Series C Preferred Stock.

1.31 "**Series C Preferred Stock**" means shares of the Company's Series C Preferred Stock, par value $0.00001 per share.

1.32 "**Series D Preferred Stock**" means shares of the Company's Series D Preferred Stock, par value $0.00001 per share.

2. Registration Rights. The Company covenants and agrees as follows:

2.1 Demand Registration.

(a) Form S-1 Demand. If at any time after the earlier of (i) three (3) years after the date of this Agreement or (ii) one hundred eighty (180) days after the effective date of the registration statement for the IPO, the Company receives a request from the Holders of at least sixty-five percent (65%) of the Registrable Securities then outstanding that the Company file a Form S-1 registration statement for which the anticipated aggregate offering price would exceed $10,000,000, then the Company shall (x) within ten (10) days after the date such request is given, give notice thereof (the "**Demand Notice**") to all Holders other than the Initiating Holders; and (y) as soon as practicable, and in any event within sixty (60) days after the date such request is given by the Initiating Holders, file a Form S-1 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Sections 2.1(c) and 2.3.

(b) Form S-3 Demand. If at any time when it is eligible to use a Form S-3 registration statement, the Company receives a request from the Holders of at least sixty-five percent (65%) of the Registrable Securities then outstanding that the Company file a Form S-3 registration statement with respect to outstanding Registrable Securities of such Holders having an anticipated aggregate offering price of at least $1,000,000, then the Company shall (i) within ten (10) days after the date such request is given, give a Demand Notice to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within forty-five (45) days after the date such request is given by the Initiating Holders, file a Form S-3 registration statement under the Securities Act covering all Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Sections 2.1(c) and 2.3.

(c) Notwithstanding the foregoing obligations, if the Company furnishes to the Holders requesting a registration pursuant to this Section 2.1 a certificate signed by the Company's chief executive officer stating that in the good faith judgment of the Board of Directors it would be materially detrimental to the Company and its stockholders for such registration statement to either become effective or remain effective for as long as such registration statement otherwise would be required to remain effective, because such action would (i) materially interfere with a significant acquisition, corporate reorganization or other similar transaction involving the Company; (ii) require premature disclosure of material information that the Company has a bona fide business purpose for preserving as confidential; or (iii) render the Company unable to comply with requirements under the Securities Act or Exchange Act, then the Company shall have the right to defer taking action with respect to such filing, and any time periods with respect to filing or effectiveness thereof shall be tolled correspondingly, for a period of not more than ninety (90) days after the request of the Initiating Holders is given; provided, however, that the Company may not invoke this right more than once in any twelve (12) month period; and provided further that the Company shall not register any securities for its own account or that of any other stockholder during such ninety (90) day period other than in an Excluded Registration.

(d) The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Section 2.1(a) (i) during the period that is sixty (60) days before the Company's good faith estimate of the date of filing of, and ending on a date that is one hundred eighty (180) days after the effective date of, a Company-initiated registration, provided that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; (ii) after the Company has effected two (2) registrations pursuant to Section 2.1(a); or (iii) if the Initiating Holders propose to dispose of shares of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Section 2.1(b). The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Section 2.1(b) during the period that is thirty (30) days before the Company's good faith estimate of the date of filing of, and ending on a date that is ninety (90) days after the effective date of, a Company-initiated registration, provided that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective. A registration shall not be counted as "effected" for purposes of this Section 2.1(d) until such time as the applicable registration statement has been declared effective by the SEC, unless the Initiating Holders withdraw their request for such registration, elect not to pay the registration expenses therefor, and forfeit their right to one demand registration statement pursuant to Section 2.6, in which case such withdrawn registration statement shall be counted as "effected" for purposes of this Section 2.1(d).

2.2 Company Registration. If the Company proposes to register (including, for this purpose, a registration effected by the Company for stockholders other than the Holders) any of its securities under the Securities Act in connection with the public offering of such securities solely for cash (other than in an Excluded Registration), the Company shall, at such time, promptly give each Holder notice of such registration. Upon the request of each Holder given within twenty (20) days after such notice is given by the Company, the Company shall, subject to the provisions of Section 2.3, cause to be registered all of the Registrable Securities that each such Holder has requested to be included in such registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.2 before the effective date of such registration, whether or not any Holder has elected to include Registrable Securities in such registration. The expenses (other than Selling Expenses) of such withdrawn registration shall be borne by the Company in accordance with Section 2.6.

2.3 Underwriting Requirements.

(a) If, pursuant to Section 2.1, the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to Section 2.1, and the Company shall include such information in the Demand Notice. The underwriter(s) will be selected by the Board of Directors and shall be reasonably acceptable to a majority in interest of the Initiating Holders. In such event, the right of any Holder to include such Holder's Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in Section 2.4(e)) enter into an underwriting agreement in customary form with the underwriter(s) selected for such underwriting. Notwithstanding any other provision of this Section 2.3, if the managing underwriter(s) advise(s) the Initiating Holders in writing that marketing factors require a limitation on the number of shares to be underwritten, then the Initiating Holders shall so advise all Holders of Registrable Securities that otherwise would be underwritten pursuant hereto, and the number of Registrable Securities that may be included in the underwriting shall be allocated among such Holders of Registrable Securities, including the Initiating Holders, in proportion (as nearly as practicable) to the number of Registrable Securities owned by each Holder or in such other proportion as shall mutually be agreed to by all such selling Holders; provided, however, that the number of Registrable Securities held by the Holders to be included in such underwriting shall not be reduced unless all other securities are first entirely excluded from the underwriting. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest one hundred (100) shares.

(b) In connection with any offering involving an underwriting of shares of the Company's capital stock pursuant to Section 2.2, the Company shall not be required to include any of the Holders' Registrable Securities in such underwriting unless the Holders accept the terms of the underwriting as agreed upon between the Company and its underwriters, and then only in such quantity as the underwriters in their sole discretion determine will not jeopardize the success of the offering by the Company. If the total number of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the number of securities to be sold (other than by the Company) that the underwriters in their reasonable discretion determine is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters and the Company in their sole discretion determine will not jeopardize the success of the offering. If the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such offering, then the Registrable Securities that are included in such offering shall be allocated among the selling Holders in proportion (as nearly as practicable to) the number of Registrable Securities owned by each selling Holder or in such other proportions as shall mutually be agreed to by all such selling Holders. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest one hundred (100) shares. Notwithstanding the foregoing, in no event shall (i) the number of Registrable Securities included in the offering be reduced unless all other securities (other than securities to be sold by the Company) are first entirely excluded from the offering, or (ii) the number of Registrable Securities included in the offering be reduced below thirty percent (30%) of the total number of securities included in such offering, unless such offering is the IPO, in which case the selling Holders may be excluded further if the underwriters make the determination described above and no other stockholder's securities are included in such offering. For purposes of the provision in this Section 2.3(b) concerning apportionment, for any selling Holder that is a partnership, limited liability company, or corporation, the partners, members, retired partners, retired members, stockholders, and Affiliates of such Holder, or the estates and Immediate Family Members of any such partners, retired partners, members, and retired members and any trusts for the benefit of any of the foregoing Persons, shall be deemed to be a single "selling Holder," and any pro rata reduction with respect to such "selling Holder" shall be based upon the aggregate number of Registrable Securities owned by all Persons included in such "selling Holder," as defined in this sentence.

2.4 Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its commercially reasonable efforts to cause such registration statement to become effective and, upon the request of the Holders of at least sixty-five percent (65%) of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or, if earlier, until the distribution contemplated in the registration statement has been completed; provided, however, that (i) such one hundred twenty (120) day period shall be extended for a period of time equal to the period the Holder refrains, at the request of an underwriter of Common Stock (or other securities) of the Company, from selling any securities included in such registration, and (ii) in the case of any registration of Registrable Securities on Form S-3 that are intended to be offered on a continuous or delayed basis, subject to compliance with applicable SEC rules, such one hundred twenty (120) day period shall be extended, if necessary, to keep the registration statement effective until all such Registrable Securities are sold;

(b) prepare and file with the SEC such amendments and supplements to such registration statement, and the prospectus used in connection with such registration statement, as may be necessary to comply with the Securities Act in order to enable the disposition of all securities covered by such registration statement;

(c) furnish to the selling Holders such numbers of copies of a prospectus, including a preliminary prospectus, as required by the Securities Act, and such other documents as the Holders may reasonably request in order to facilitate their disposition of their Registrable Securities;

(d) use its commercially reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or blue-sky laws of such jurisdictions as shall be reasonably requested by the selling Holders; provided that the Company shall not be required to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the underwriter(s) of such offering;

(f) use its commercially reasonable efforts to cause all such Registrable Securities covered by such registration statement to be listed on a national securities exchange or trading system and each securities exchange and trading system (if any) on which similar securities issued by the Company are then listed;

(g) provide a transfer agent and registrar for all Registrable Securities registered pursuant to this Agreement and provide a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(h) promptly make available for inspection by the selling Holders, any managing underwriter(s) participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the selling Holders, all financial and other records, pertinent corporate documents and properties of the Company, and cause the Company's officers, directors, employees and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant or agent, in each case, as necessary or advisable to verify the accuracy of the information in such registration statement and to conduct appropriate due diligence in connection therewith;

(i) notify each selling Holder, promptly after the Company receives notice thereof, of the time when such registration statement has been declared effective or a supplement to any prospectus forming a part of such registration statement has been filed; and

(j) after such registration statement becomes effective, notify each selling Holder of any request by the SEC that the Company amend or supplement such registration statement or prospectus.

In addition, the Company shall ensure that, at all times after any registration statement covering a public offering of securities of the Company under the Securities Act shall have become effective, its insider trading policy shall provide that the Company's directors may implement a trading program under Rule 10b5-1 of the Exchange Act.

2.5 Furnish Information. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it and the intended method of disposition of such securities as is reasonably required to effect the registration of such Holder's Registrable Securities.

2.6 Expenses of Registration. All expenses (other than Selling Expenses) incurred in connection with registrations, filings, or qualifications pursuant to Section 2, including all registration, filing, and qualification fees; printers' and accounting fees; fees and disbursements of counsel for the Company; and the reasonable fees and disbursements of one counsel for the selling Holders selected by the Holders of at least sixty-five percent (65%) of the Registrable Securities to be registered ("**Selling Holder Counsel**"), shall be borne and paid by the Company; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 2.1 if the registration request is subsequently withdrawn at the request of the Holders of at least sixty-five percent (65%) of the Registrable Securities to be registered (in which case all selling Holders shall bear such expenses pro rata based upon the number of Registrable Securities that were to be included in the withdrawn registration), unless the Holders of at least sixty-five percent (65%) of the Registrable Securities agree to forfeit their right to one registration pursuant to Sections 2.1(a) or 2.1(b), as the case may be; provided further that if, at the time of such withdrawal, the Holders shall have learned of a material adverse change in the condition, business or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request with reasonable promptness after learning of such information then the Holders shall not be required to pay any of such expenses and shall not forfeit their right to one registration pursuant to Sections 2.1(a) or 2.1(b). All Selling Expenses relating to Registrable Securities registered pursuant to this Section 2 shall be borne and paid by the Holders pro rata on the basis of the number of Registrable Securities registered on their behalf.

2.7 Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any registration pursuant to this Agreement as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.8 Indemnification. If any Registrable Securities are included in a registration statement under this Section 2:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each selling Holder and the partners, members, officers, directors and stockholders of each such Holder; legal counsel, accountants and investment advisors for each such Holder; any underwriter (as defined in the Securities Act) for each such Holder; and each Person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any Damages, and the Company will pay to each such Holder, underwriter, controlling Person or other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section 2.8(a) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable for any Damages to the extent that they arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of any such Holder, underwriter, controlling Person, or other aforementioned Person expressly for use in connection with such registration.

(b) To the extent permitted by law, each selling Holder, severally and not jointly, will indemnify and hold harmless the Company, and each of its directors, each of its officers who has signed the registration statement, each Person (if any), who controls the Company within the meaning of the Securities Act, legal counsel and accountants for the Company, any underwriter (as defined in the Securities Act), any other Holder selling securities in such registration statement and any controlling Person of any such underwriter or other Holder, against any Damages, in each case only to the extent that such Damages arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of such selling Holder expressly for use in connection with such registration; and each such selling Holder will pay to the Company and each other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section 2.8(b) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; and provided further that in no event shall the aggregate amounts payable by any Holder by way of indemnity or contribution under Sections 2.8(b) and 2.8(d) exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of fraud or willful misconduct by such Holder.

(c) Promptly after receipt by an indemnified party under this Section 2.8 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2.8, give the indemnifying party notice of the commencement thereof. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.8, to the extent that such failure materially prejudices the indemnifying party's ability to defend such action. The failure to give notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.8.

(d) To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either: (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Section 2.8 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Section 2.8 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party hereto for which indemnification is provided under this Section 2.8, then, and in each such case, such parties will contribute to the aggregate losses, claims, damages, liabilities or expenses to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of each of the indemnifying party and the indemnified party in connection with the statements, omissions, or other actions that resulted in such loss, claim, damage, liability or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or allegedly untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission; provided, however, that, in any such case, (x) no Holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Holder pursuant to such registration statement and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation; and provided further that in no event shall a Holder's liability pursuant to this Section 2.8(d), when combined with the amounts paid or payable by such Holder pursuant to Section 2.8(b), exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of willful misconduct or fraud by such Holder.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(f) Unless otherwise superseded by an underwriting agreement entered into in connection with the underwritten public offering, the obligations of the Company and Holders under this Section 2.8 shall survive the completion of any offering of Registrable Securities in a registration under this Section 2, and otherwise shall survive the termination of this Agreement.

2.9 Reports Under Exchange Act. With a view to making available to the Holders the benefits of SEC Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company shall:

(a) make and keep available adequate current public information, as those terms are understood and defined in SEC Rule 144, at all times after the effective date of the registration statement filed by the Company for the IPO;

(b) use commercially reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after the Company has become subject to such reporting requirements); and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) to the extent accurate, a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144 (at any time after ninety (90) days after the effective date of the registration statement filed by the Company for the IPO), the Securities Act and the Exchange Act (at any time after the Company has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after the Company so qualifies); (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company; and (iii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC that permits the selling of any such securities without registration (at any time after the Company has become subject to the reporting requirements under the Exchange Act) or pursuant to Form S-3 (at any time after the Company so qualifies to use such form).

2.10 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of at least sixty-five percent (65%) of the Registrable Securities then outstanding, enter into any agreement with any holder or prospective holder of any securities of the Company that (i) would provide to such holder the right to include securities in any registration on other than a subordinate basis after all Holders have had the opportunity to include in the registration and offering all shares of Registrable Securities that they wish to so include or (ii) allow such holder or prospective holder to initiate a demand for registration of any securities held by such holder or prospective holder; provided that this limitation shall not apply to any additional Investor who becomes a party to this Agreement in accordance with Section 6.9.

2.11 "Market Stand-off" Agreement. Each holder of Series D Preferred Stock, Series C Preferred Stock, Series B Preferred Stock, Series A Preferred Stock and Common Stock hereby agrees that it will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the IPO, and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (180) days in the case of the IPO, or such other period as may be requested by the Company or an underwriter (but in no event more than two hundred sixteen (216) days) to accommodate regulatory restrictions on (1) the publication or other distribution of research reports, and (2) analyst recommendations and opinions, including, but not limited to, the restrictions contained in FINRA Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto), (i) lend; offer; pledge; sell; contract to sell; sell any option or contract to purchase; purchase any option or contract to sell; grant any option, right, or warrant to purchase; or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable (directly or indirectly) for Common Stock held immediately before the effective date of the registration statement for such offering or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or other securities, in cash or otherwise. The foregoing provisions of this Section 2.11 shall apply only to the IPO, shall not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement for such IPO and shall be applicable to the Holders only if all officers and directors of the Company and holders of at least one percent (1%) of the Company's outstanding Common Stock (after giving effect to conversion into Common Stock of all outstanding Series D Preferred Stock, Series C Preferred Stock, Series B Preferred Stock and Series A Preferred Stock) are subject to similar restrictions. The underwriters in connection with such registration are intended third-party beneficiaries of this Section 2.11 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto. Each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in connection with such registration that are consistent with this Section 2.11 or that are necessary to give further effect thereto.

2.12 Restrictions on Transfer.

(a) The Series D Preferred Stock, Series C Preferred Stock, Series B Preferred Stock, Series A Preferred Stock and the Common Stock shall not be sold, pledged, or otherwise transferred in violation of this Agreement, and the Company shall not recognize and shall issue stop-transfer instructions to its transfer agent with respect to any such sale, pledge or transfer, except upon the conditions specified in this Agreement, which conditions are intended to ensure compliance with the provisions of the Securities Act. A transferring holder of Series D Preferred Stock, Series C Preferred Stock, Series B Preferred Stock, Series A Preferred Stock or Common Stock will cause any proposed purchaser, pledgee or transferee of such stock held by such holder to agree to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement.

(b) Each certificate, instrument or book entry representing Restricted Securities shall (unless otherwise permitted by the provisions of Section 2.12(c)) be notated with a legend substantially in the following form:

> THE SHARES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933.

THE SHARES REPRESENTED BY THIS CERTIFICATE MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT BY AND AMONG THE HOLDER OF THE SECURITIES, THE COMPANY AND CERTAIN STOCKHOLDERS OF THE COMPANY. COPIES OF SUCH AGREEMENT MAY BE OBTAINED UPON WRITTEN REQUEST TO THE SECRETARY OF THE COMPANY.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO RESTRICTIONS ON TRANSFER INCLUDING RESTRICTIONS FOR A PERIOD NOT TO EXCEED 180 DAYS FOLLOWING THE EFFECTIVE DATE OF THE UNDERWRITTEN PUBLIC OFFERING OF THE COMPANY'S SECURITIES AND MAY NOT BE SOLD OR OTHERWISE DISPOSED OF BY THE HOLDER WITHOUT THE CONSENT OF THE COMPANY OR THE MANAGING UNDERWRITER.

The holders of Restricted Securities consent to the Company making a notation in its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer set forth in this Section 2.12.

(c) The holder of each certificate representing Restricted Securities, by acceptance of ownership thereof, agrees to comply in all respects with the provisions of this Section 2. Before any proposed sale, pledge or transfer of any Restricted Securities, unless there is in effect a registration statement under the Securities Act covering the proposed transaction or, following the IPO, the transfer is made pursuant to SEC Rule 144, the Holder thereof shall give notice to the Company of such Holder's intention to effect such sale, pledge or transfer. Each such notice shall describe the manner and circumstances of the proposed sale, pledge or transfer in sufficient detail and, if reasonably requested by the Company, shall be accompanied at such Holder's expense by either (i) a written opinion of legal counsel who shall, and whose legal opinion shall, be reasonably satisfactory to the Company, addressed to the Company, to the effect that the proposed transaction may be effected without registration under the Securities Act; (ii) a "no action" letter from the SEC to the effect that the proposed sale, pledge or transfer of such Restricted Securities without registration will not result in a recommendation by the staff of the SEC that action be taken with respect thereto; or (iii) any other evidence reasonably satisfactory to counsel to the Company to the effect that the proposed sale, pledge, or transfer of the Restricted Securities may be effected without registration under the Securities Act, whereupon the Holder of such Restricted Securities shall be entitled to sell, pledge or transfer such Restricted Securities in accordance with the terms of the notice given by the Holder to the Company. The Company will not require such a legal opinion or "no action" letter (x) in any transaction in compliance with SEC Rule 144 or (y) in any transaction in which such Holder distributes Restricted Securities to an Affiliate of such Holder for no consideration; provided that, with respect to transfers following the IPO under the foregoing clause (y), each transferee agrees in writing to be subject to the terms of this Section 2.12. Each certificate, instrument or book entry evidencing the Restricted Securities transferred as above provided shall be notated with, except if such transfer is made pursuant to SEC Rule 144 or pursuant to an effective registration statement under the Securities Act, the appropriate restrictive legend set forth in Section 2.12(b), except that such certificate, instrument or book entry shall not be notated with such restrictive legend if, in the opinion of counsel for such Holder and the Company, such legend is not required in order to establish compliance with any provisions of the Securities Act.

2.13 Termination of Registration Rights. The right of any Holder to request registration or inclusion of Registrable Securities in any registration pursuant to Sections 2.1 or 2.2 shall terminate upon the earliest to occur of:

(a) the closing of a Deemed Liquidation Event, as such term is defined in the Company's Restated Certificate;

(b) such time after the IPO as SEC Rule 144 or another similar exemption under the Securities Act is available for the sale of all of such Holder's shares without limitation during a three-month period without registration; and

(c) the fifth (5^{th}) anniversary of the IPO.

3. Information Rights.

3.1 Delivery of Financial Statements. The Company shall deliver to each Holder, provided that the Board of Directors has not reasonably determined that such Holder is (or, in the case of a Holder that is an individual, is employed by or serves as a consultant to) a competitor of the Company (provided that an Investor shall not be deemed to be a competitor of the Company solely for owning an equity interest in one or more companies that may be considered competitive with the Company):

(a) as soon as practicable, but in any event within one hundred twenty (120) days after the end of each fiscal year of the Company, (i) a balance sheet as of the end of such year, (ii) statements of income and of cash flows for such year, and (iii) a statement of stockholders' equity as of the end of such year, all such financial statements audited and certified by independent public accountants of nationally recognized standing selected by the Company and approved by the Board of Directors; provided that the requirement for audited financial statements and/or independent public accountants of nationally recognized standing may be waived by the written consent of the Holders, owing at least sixty-five percent (65%) of the outstanding and issued Series B Preferred Stock, Series C Preferred Stock and Series D Preferred Stock, voting together as a single class on an as-converted to Common Stock basis;

(b) as soon as practicable, but in any event within forty-five (45) days after the end of each of the first three (3) quarters of each fiscal year of the Company, unaudited statements of income and of cash flows for such fiscal quarter and an unaudited balance sheet as of the end of such fiscal quarter, all prepared in accordance with GAAP (except that such financial statements may (i) be subject to normal year-end audit adjustments and (ii) not contain all notes thereto that may be required in accordance with GAAP);

(c) as soon as practicable, but in any event within thirty (30) days of the end of each month, an unaudited income statement and statement of cash flows for such month, and an unaudited balance sheet as of the end of such month, all prepared in accordance with GAAP (except that such financial statements may (i) be subject to normal year-end audit adjustments and (ii) not contain all notes thereto that may be required in accordance with GAAP), including a comparison of performance against (i) the Budget (as defined below) and (ii) the prior year's actual results;

(d) as soon as practicable, but in any event thirty (30) days before the end of each fiscal year, a budget and business plan for the next fiscal year (collectively, the "**Budget**"), approved by the Board of Directors and prepared on a monthly basis, including balance sheets, income statements, and statements of cash flow for such months and, promptly after prepared, any other budgets or revised budgets prepared by the Company;

(e) with respect to the financial statements called for in Section 3.1(a), Section 3.1(b) and Section 3.1(c), an instrument executed by the chief financial officer and chief executive officer of the Company certifying that such financial statements were prepared in accordance with GAAP consistently applied with prior practice for earlier periods (except as otherwise set forth in Section 3.1(b) and Section 3.1(c)) and fairly present the financial condition of the Company and its results of operation for the periods specified therein; and

(f) such other information relating to the financial condition, operating information, business, prospects or corporate affairs of the Company as any Holder may from time to time reasonably request; provided, however, that the Company shall not be obligated under this Section 3.1 to provide information (i) that the Company reasonably determines in good faith to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in a form acceptable to the Company) or (ii) the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

If, for any period, the Company has any subsidiary whose accounts are consolidated with those of the Company, then in respect of such period the financial statements delivered pursuant to the foregoing sections shall be the consolidated financial statements of the Company and all such consolidated subsidiaries.

Notwithstanding anything else in this Section 3.1 to the contrary, the Company may cease providing the information set forth in this Section 3.1 during the period starting with the date sixty (60) days before the Company's good-faith estimate of the date of filing of a registration statement if it reasonably concludes it must do so to comply with the SEC rules applicable to such registration statement and related offering; provided that the Company's covenants under this Section 3.1 shall be reinstated at such time as the Company is no longer actively employing its commercially reasonable efforts to cause such registration statement to become effective.

3.2 Inspection. The Company shall permit each Holder (provided that the Board of Directors has not reasonably determined that such Holder is a competitor of the Company), at such Holder's expense, to visit and inspect the Company's properties; examine its books of account and records; and discuss the Company's affairs, finances and accounts with its officers, during normal business hours of the Company as may be reasonably requested by the Holder; provided, however, that the Company shall not be obligated pursuant to this Section 3.2 to provide access to any information that it reasonably and in good faith considers to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in form acceptable to the Company) or the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

3.3 Termination of Information Rights. The covenants set forth in Section 3.1 and Section 3.2 shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, as such term is defined in the Company's Restated Certificate, unless the consideration received by the Investors is in the form of securities that are privately held, whichever event occurs first.

3.4 Confidentiality. Each Investor agrees that such Investor will keep confidential and will not disclose, divulge or use for any purpose (other than to monitor its investment in the Company) any confidential information obtained from the Company pursuant to the terms of this Agreement (including notice of the Company's intention to file a registration statement), unless such confidential information (a) is known or becomes known to the public in general (other than as a result of a breach of this Section 3.4 by such Investor), (b) is or has been independently developed or conceived by any Investor without use of the Company's confidential information, or (c) is or has been made known or disclosed to any Investor by a third party without a breach of any obligation of confidentiality such third party may have to the Company; provided, however, that an Investor may disclose confidential information (i) to its attorneys, accountants, consultants and other professionals to the extent necessary to obtain their services in connection with monitoring its investment in the Company; (ii) to any prospective purchaser of any Registrable Securities from such Investor, if such prospective purchaser agrees to be bound by the provisions of this Section 3.4; (iii) to any Affiliate, partner, member, stockholder or wholly owned subsidiary of such Investor in the ordinary course of business, provided that such Investor informs such Person that such information is confidential and directs such Person to maintain the confidentiality of such information; or (iv) as may otherwise be required by law, provided that such Investor promptly notifies the Company of such disclosure and takes reasonable steps to minimize the extent of any such required disclosure.

4. Rights to Future Stock Issuances.

4.1 Right of First Offer. Subject to the terms and conditions of this Section 4.1 and applicable securities laws, if the Company proposes to offer or sell any New Securities, the Company shall first offer such New Securities to each Investor. An Investor shall be entitled to apportion the right of first offer hereby granted to it among itself and its Affiliates in such proportions as it deems appropriate. The Company shall not be required to offer or sell New Securities to any Investor who is not an accredited investor within the meaning of Rule 501 under the Securities Act or who would otherwise cause the Company to be in violation of applicable federal and state securities laws.

(a) The Company shall give notice (the "**Offer Notice**") to each Investor, stating (i) its bona fide intention to offer such New Securities, (ii) the number of such New Securities to be offered and (iii) the price and terms, if any, upon which it proposes to offer such New Securities.

(b) By notification to the Company within twenty (20) days after the Offer Notice is given, each Investor may elect to purchase or otherwise acquire, at the price and on the terms specified in the Offer Notice, up to that portion of such New Securities which equals the proportion that the Common Stock issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of the Preferred Stock and any other Derivative Securities then held, by such Investor bears to the total Common Stock of the Company then outstanding (assuming full conversion and/or exercise, as applicable, of all Preferred Stock and other Derivative Securities). At the expiration of such twenty (20) day period, the Company shall promptly notify each Investor that elects to purchase or acquire all the shares available to it (each, a "**Fully Exercising Investor**") of any other Investor's failure to do likewise. During the ten (10) day period commencing after the Company has given such notice, each Fully Exercising Investor may, by giving notice to the Company, elect to purchase or acquire, in addition to the number of shares specified above, up to that portion of the New Securities for which Investors were entitled to subscribe but that were not subscribed for by the Investors which is equal to the proportion that the Common Stock issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of Preferred Stock and any other Derivative Securities then held, by such Fully Exercising Investor bears to the Common Stock issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of the Preferred Stock and any other Derivative Securities then held, by all Fully Exercising Investors who wish to purchase such unsubscribed shares. The closing of any sale pursuant to this Section 4.1(b) shall occur within the later of ninety (90) days of the date that the Offer Notice is given and the date of initial sale of New Securities pursuant to Section 4.1(c).

(c) If all New Securities referred to in the Offer Notice are not elected to be purchased or acquired as provided in Section 4.1(b), the Company may, during the ninety (90) day period following the expiration of the periods provided in Section 4.1(b), offer and sell the remaining unsubscribed portion of such New Securities to any Person or Persons at a price not less than, and upon terms no more favorable to the offeree than, those specified in the Offer Notice. If the Company does not enter into an agreement for the sale of the New Securities within such period, or if such agreement is not consummated within thirty (30) days of the execution thereof, the right provided hereunder shall be deemed to be revived and such New Securities shall not be offered unless first reoffered to the Investors in accordance with this Section 4.1.

(d) The right of first offer in this Section 4.1 shall not be applicable to (i) Exempted Securities (as defined in the Company's Restated Certificate) or (ii) shares of Common Stock issued in the IPO.

4.2 Termination. The covenants set forth in Section 4.1 shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, as such term is defined in the Company's Restated Certificate, whichever event occurs first.

5. Additional Covenants.

5.1 Insurance. The Company has, from financially sound and reputable insurers, Directors and Officers liability insurance in an amount and on terms and conditions satisfactory to the Board of Directors (including the director designated by Piper Jaffray Merchant Banking Fund II, L.P. ("**PJMB**")), and will use commercially reasonable efforts to cause such insurance policies to be maintained until such time as the Board of Directors (including the director designated by PJMB) determines that such insurance should be discontinued.

5.2 Employee Matters. The Company will cause each person now or hereafter employed by it or by any subsidiary (or engaged by the Company or any subsidiary as a consultant/independent contractor) with access to confidential information and/or trade secrets to enter into a nondisclosure and proprietary rights assignment agreement in the form approved by the Company's Board of Directors.

5.3 Employee Stock. Unless otherwise approved by the Board of Directors, all future employees and consultants of the Company who purchase, receive options to purchase or receive awards of shares of the Company's capital stock after the date hereof shall be required to execute restricted stock or option agreements, as applicable, providing for (i) vesting of shares over a four (4) year period, with the first twenty-five percent (25%) of such shares vesting following twelve (12) months of continued employment or service, and the remaining shares vesting in equal monthly installments over the following thirty-six (36) months without any form of accelerated vesting unless specifically approved by the Board of Directors, and (ii) a market stand-off provision substantially similar to that in Section 2.11. In addition, unless otherwise approved by the Board of Directors, the Company shall retain a "right of first refusal" on employee transfers until the Company's IPO and shall have the right to repurchase unvested shares at cost upon termination of employment of a holder of restricted stock.

5.4 Board Matters. Unless otherwise determined by the vote of a majority of the directors then in office, the Board of Directors shall meet at least quarterly in accordance with an agreed-upon schedule. The Company shall reimburse the nonemployee directors for all reasonable out-of-pocket travel expenses incurred (consistent with the Company's travel policy) in connection with attending meetings of the Board of Directors. The Company shall maintain, an audit and compensation committee, each of which shall consist of at least three (3) directors, which shall include two (2) directors designated by Telegraph Hill Partners III L.P. The director designated by PJMB is entitled to, but is not obligated to, serve on each committee of the Board of Directors.

5.5 Successor Indemnification. If the Company or any of its successors or assignees consolidates with or merges into any other Person and is not the continuing or surviving corporation or entity of such consolidation or merger, then to the extent necessary, proper provision shall be made so that the successors and assignees of the Company assume the obligations of the Company with respect to indemnification of members of the Board of Directors as in effect immediately before such transaction, whether such obligations are contained in the Company's Bylaws, its Restated Certificate, or elsewhere, as the case may be.

5.6 Expenses of Counsel. In the event of a transaction which is a Sale of the Company (as defined in the Amended and Restated Voting Agreement of even date herewith among the Investors and the Company), the reasonable fees and disbursements of one counsel for the Holders ("**Investor Counsel**"), in their capacities as stockholders, shall be borne and paid by the Company. At the outset of considering a transaction which, if consummated would constitute a Sale of the Company, the Company shall obtain the ability to share with the Investor Counsel (and such counsel's clients) and shall share the confidential information (including, without limitation, the initial and all subsequent drafts of memoranda of understanding, letters of intent and other transaction documents and related noncompete, employment, consulting and other compensation agreements and plans) pertaining to and memorializing any of the transactions which, individually or when aggregated with others would constitute the Sale of the Company. The Company shall be obligated to share (and cause the Company's counsel and investment bankers to share) such materials when distributed to the Company's executives and/or any one or more of the other parties to such transaction(s). In the event that Investor Counsel deems it appropriate, in its reasonable discretion, to enter into a joint defense agreement or other arrangement to enhance the ability of the parties to protect their communications and other reviewed materials under the attorney client privilege, the Company shall, and shall direct its counsel to, execute and deliver to Investor Counsel and its clients such an agreement in form and substance reasonably acceptable to Investor Counsel. In the event that one or more of the other party or parties to such transactions require the clients of Investor Counsel to enter into a confidentiality agreement and/or joint defense agreement in order to receive such information, then the Company shall share whatever information can be shared without entry into such agreement and shall, at the same time, in good faith work expeditiously to enable Investor Counsel and its clients to negotiate and enter into the appropriate agreement(s) without undue burden to the clients of Investor Counsel.

5.7 Right to Conduct Activities. The Company hereby agrees and acknowledges that each of Telegraph Hill Partners III L.P. ("**THP**"), PJMB (together with their respective affiliates), Agilent Technologies, Inc. ("**Agilent**") and Innovatus Life Sciences Lending Fund I, LP and Innovatus Life Sciences Offshore Fund I-A, LP (together, "**Innovatus**") invests in numerous companies, some of which may be deemed competitive with the Company's business (as currently conducted or as currently propose to be conducted). The Company hereby agrees that, to the extent permitted under applicable law, THP, PJMB, Agilent and Innovatus shall not be liable to the Company for any claim arising out of or based upon, (i) the investment by such Investor in any entity competitive with the Company, or (ii) actions taken by any partner, officer or other representative of such Investor to assist any such competitive company, whether or not such action was taken as a member of the board of directors of such competitive company or otherwise, and whether or not such action has a detrimental effect on the Company; provided, however, that the foregoing shall not relieve (x) any of the Investors from liability associated with the unauthorized disclosure of the Company's confidential information obtained pursuant to this Agreement, or (y) any director or officer of the Company from any liability associated with his or her fiduciary duties to the Company.

5.8 Efforts for Series D Redemption. Following the Company's receipt of the Series D Redemption Request (as defined in the Restated Certificate), the Company shall take all action and efforts that the Board of Directors deems reasonable and appropriate to make available free cash flow for purposes of paying the Series D Redemption Price (as defined in the Restated Certificate) to the holders of Series D Preferred Stock in accordance with the Restated Certificate.

5.9 Termination of Covenants. The covenants set forth in this Section 5, except for Sections 5.6, shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, as such term is defined in the Company's Restated Certificate, whichever event occurs first.

6. Miscellaneous.

6.1 Successors and Assigns. The rights under this Agreement may be assigned (but only with all related obligations) by a Holder to a transferee of Registrable Securities that (i) is an Affiliate of a Holder; (ii) is a Holder's Immediate Family Member or trust for the benefit of an individual Holder or one or more of such Holder's Immediate Family Members; or (iii) after such transfer, holds at least 100,000 shares of Registrable Securities (subject to appropriate adjustment for stock splits, stock dividends, combinations and other recapitalizations); provided, however, that (x) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Registrable Securities with respect to which such rights are being transferred; and (y) such transferee agrees in a written instrument delivered to the Company to be bound by and subject to the terms and conditions of this Agreement, including the provisions of Section 2.11. For the purposes of determining the number of shares of Registrable Securities held by a transferee, the holdings of a transferee (1) that is an Affiliate or stockholder of a Holder; (2) who is a Holder's Immediate Family Member; or (3) that is a trust for the benefit of an individual Holder or such Holder's Immediate Family Member shall be aggregated together and with those of the transferring Holder; provided further that all transferees who would not qualify individually for assignment of rights shall have a single attorney-in-fact for the purpose of exercising any rights, receiving notices or taking any action under this Agreement. The terms and conditions of this Agreement inure to the benefit of and are binding upon the respective successors and permitted assignees of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assignees any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided herein.

6.2 Governing Law. This Agreement and any controversy arising out of or relating to this Agreement shall be governed by and construed in accordance with the internal laws of the State of Delaware, without regard to conflict of law principles that would result in the application of any law other than the law of the State of Delaware.

6.3 Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature *e.g.*, www.DocuSign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes**.**

6.4 Titles and Subtitles. The titles and subtitles used in this Agreement are for convenience only and are not to be considered in construing or interpreting this Agreement.

6.5 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or: (i) personal delivery to the party to be notified; (ii) when sent, if sent by electronic mail or facsimile during the recipient's normal business hours, and if not sent during normal business hours, then on the recipient's next business day; (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (iv) one (1) business day after the business day of deposit with a nationally recognized overnight courier, freight prepaid, specifying next-day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their addresses as set forth on Schedule A or Schedule B (as applicable) hereto, or to the principal office of the Company at 1505 O'Brien Drive, Suite A-1, Menlo Park, California 94025 Attention: Chief Executive Officer, in the case of the Company, or to such email address, facsimile number, or address as subsequently modified by written notice given in accordance with this Section 6.5. If notice is given to the Company, it shall be sent to 1505 O'Brien Drive, Suite A-1, Menlo Park, CA 94025, Attention: Chief Executive Officer, and a copy shall also be sent to DLA Piper LLP (US), 1100 Executive Drive, Floor 11, San Diego, CA 92121, Attention: Michael Kagnoff, email: Michael.Kagnoff@us.dlapiper.com; fax: 858.638.5122; and if notice is given to the Investors, a copy shall be sent to the Investors' addresses set forth on Schedule A.

6.6 Amendments and Waivers. Any term of this Agreement may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance, and either retroactively or prospectively) only with the written consent of the Company and the holders of least two-thirds (2/3) of Series D Preferred Stock, Series C Preferred Stock and Series B Preferred Stock then outstanding, voting together as a single class on an as-converted to Common Stock basis; provided that the Company may in its sole discretion waive compliance with Section 2.12(c) (and the Company's failure to object promptly in writing after notification of a proposed assignment allegedly in violation of Section 2.12(c) shall be deemed to be a waiver); and provided further that any provision hereof may be waived by any waiving party on such party's own behalf, without the consent of any other party. Notwithstanding the foregoing, (i) this Agreement may not be amended or terminated and the observance of any term hereof may not be waived with respect to any Investor without the written consent of such Investor, unless such amendment, termination, or waiver applies to all Investors in the same fashion (it being agreed that a waiver of the provisions of Section 4 with respect to a particular transaction shall be deemed to apply to all Investors in the same fashion if such waiver does so by its terms, notwithstanding the fact that certain Investors may nonetheless, by agreement with the Company, purchase securities in such transaction) and (ii) Section 5.1, Section 5.4 and clause (ii) of this Section 6.6 may not be amended, terminated or waived without the consent of PJMB. The Company shall give prompt notice of any amendment or termination hereof or waiver hereunder to any party hereto that did not consent in writing to such amendment, termination, or waiver. Any amendment, termination or waiver effected in accordance with this Section 6.6 shall be binding on all parties hereto, regardless of whether any such party has consented thereto. No waivers of or exceptions to any term, condition or provision of this Agreement, in any one or more instances, shall be deemed to be or construed as a further or continuing waiver of any such term, condition or provision.

6.7 Severability. In case any one or more of the provisions contained in this Agreement is for any reason held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision of this Agreement, and such invalid, illegal or unenforceable provision shall be reformed and construed so that it will be valid, legal and enforceable to the maximum extent permitted by law.

6.8 Aggregation of Stock. All shares of Registrable Securities held or acquired by Affiliates shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

6.9 Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company issues additional shares of the Company's capital stock after the date hereof, any purchaser of such shares of capital stock may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement, and thereafter shall be deemed an "Investor" for all purposes hereunder. No action or consent by the Investors shall be required for such joinder to this Agreement by such additional Investor, so long as such additional Investor has agreed in writing to be bound by all of the obligations as an "Investor" hereunder.

6.10 Entire Agreement. This Agreement (including any Schedules hereto) constitutes the full and entire understanding and agreement among the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties is expressly canceled.

6.11 Cost of Enforcement. The prevailing party shall be entitled to reasonable attorney's fees, costs, and necessary disbursements in addition to any other relief to which such party may be entitled.

6.12 Delays or Omissions. No delay or omission to exercise any right, power, or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power or remedy of such nonbreaching or nondefaulting party, nor shall it be construed to be a waiver of or acquiescence to any such breach or default, or to any similar breach or default thereafter occurring, nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. All remedies, whether under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

6.13 Further Assurances. At any time or from time to time after the date hereof, the parties agree to cooperate with each other, and at the request of any other party, to execute and deliver any further instruments or documents and to take all such further action as the other party may reasonably request in order to evidence or effectuate the consummation of the transactions contemplated hereby and to otherwise carry out the intent of the parties hereunder.

6.14 Acknowledgment. The Company acknowledges that the Investors are in the business of venture capital investing and therefore reviews the business plans and related proprietary information of many enterprises, including enterprises which may have products or services which compete directly or indirectly with those of the Company. Nothing in this Agreement shall preclude or in any way restrict the Investors from investing or participating in any particular enterprise whether or not such enterprise has products or services which compete with those of the Company.

6.15 Amendment and Restatement of the Prior Agreement. The parties hereto hereby agree that the Prior Agreement shall be amended and restated in its entirety as set forth herein and such Prior Agreement shall have no further force or effect after the date first written above.

REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK.

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

COMPANY

AKOYA BIOSCIENCES, INC.

By: /s/ Brian McKelligon
Name: Brian McKelligon
Title: Chief Executive Officer

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

PIPER JAFFRAY MERCHANT BANKING FUND , L.P.

By: /s/ Thomas P. Schnettler
Name: Thomas P. Schnettler
Title: Co-CEO of PJC Capital Management II LLC,
General Partner for Piper Jaffray Merchant Banking
Fund II, L.P.

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

TELEGRAPH HILL PARTNERS III L.P.

By: /s/ Robert Shepler
Name: Robert Shepler
Title: Managing Director

THP III AFFILIATES FUND, LLC

By: /s/ Robert Shepler
Name: Robert Shepler
Title: Managing Director

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY (PVF)

By: /s/ Sabrina Liang

Name: Sabrina Liang

Title: Authorized Signatory on behalf of The Board of Trustees of the Leland Stanford Junior University (PVF)

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

/s/ Matthew Winkler
MATTHEW WINKLER

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

/s/ J. Matthew Mackowski
J. MATTHEW MACKOWSKI

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

/s/ Robert Shepler
ROBERT SHEPLER

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

/s/ Thomas Raffin
THOMAS RAFFIN

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

/s/ Deval Lashkari
DEVAL LASHKARI

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

/s/ Jeanette Welsh
JEANETTE WELSH

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

/s/ Rob Hart
ROB HART

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

INNOVATUS LIFE SCIENCES LENDING FUND I, LP
By: Innovatus Life Sciences GP, LP, its general partner

By: /s/ Andrew Dym
Name: Andrew Dym
Title: Authorized Signatory

INNOVATUS LIFE SCIENCES OFFSHORE FUND I-A, LP
By: Innovatus Life Sciences GP, LP, its general partner

By: /s/ Andrew Dym
Name: Andrew Dym
Title: Authorized Signatory

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

/s/ Alex Herzick
ALEX HERZICK

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

AGILENT TECHNOLOGIES, INC.

By: /s/ P. Diana Chiu
Name: P. Diana Chiu
Title: Asst General Counsel and Asst Secretary

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

JOHN S. OSTERWEIS TRUSTEE FOR THE OSTERWEIS REVOCABLE TRUST DTD 9/13/93

By: /s/ John S. Osterweis
Name: John S. Osterweis
Title: Trustee

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

FLORIDA INTERNATIONAL UNIVERSITY FOUNDATION, INC.

By: /s/ Jared Thomas
Name: Jared Thomas
Title: Authorized Signatory

By: Cambridge Associates, LLC, its investment manager

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

NATIONAL GEOGRAPHIC SOCIETY

By: /s/ Jared Thomas
Name: Jared Thomas
Title: Authorized Signatory

By: Cambridge Associates, LLC, its investment manager

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

THE LOOMIS INSTITUTE

By: /s/ Jared Thomas
Name: Jared Thomas
Title: Authorized Signatory

By: Cambridge Associates, LLC, its investment manager

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

MT. CUBA CENTER, INC.

By: /s/ Jared Thomas
Name: Jared Thomas
Title: Authorized Signatory

By: Cambridge Associates, LLC, its investment manager

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

MERCY COLLEGE

By: /s/ Jared Thomas
Name: Jared Thomas
Title: Authorized Signatory

By: Cambridge Associates, LLC, its investment manager

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR

THE HOLLINS UNIVERSITY CORPORATION

By: /s/ Jared Thomas
Name: Jared Thomas
Title: Authorized Signatory

By: Cambridge Associates, LLC, its investment manager

SCHEDULE A

INVESTORS

Name and Address
Piper Jaffray Merchant Banking Fund II, L.P. 800 Nicollet Mall Suite 1000 Minneapolis, MN 55402
Telegraph Hill Partners III L.P. 360 Post Street, Suite 601 San Francisco, CA 94108
THP III Affiliates Fund, LLC 360 Post Street, Suite 601 San Francisco, CA 94108
The Board of Trustees of the Leland Stanford Junior University (PVF) School & Department Fund Administration 635 Knight Way Stanford, CA 94305-7297 Ph#: 650-721-2200 Em: direct@smc.stanford.edu
Matthew Winkler [***] [***]
Gary J. Latham [***] [***]
Sejal Sheth [***] [***]
Terry Lo [***] [***]
Peter J. Miller [***] [***]
Clifford C. Hoyt [***] [***]
Yury Goltsev [***] [***]
Nikolay Samusik [***] [***]
Garry Nolan [***] [***]

Name and Address
The Board of Trustees of the Leland Stanford Junior University 450 Serra Mall Stanford, CA 94305-2004
WS Investment Company, LLC (2015A) 650 Page Mill Road Palo Alto, CA 94304
J. Matthew Mackowski [***] [***]
Robert Shepler [***] [***]
Thomas Raffin [***] [***]
Deval Lashkari [***] [***]
Jeanette Welsh [***] [***]
Rob Hart [***] [***]
Alex Herzick [***] [***]
Agilent Technologies, Inc. Attention: General Counsel 5301 Stevens Creek Blvd. Santa Clara, CA 95051 Facsimile: 408-345-8958
John S. Osterweis Trustee for The Osterweis Revocable Trust Dtd 9/13/93 Attention: Cecilia D'Ambrosio E-Mail: Cecilia.DAmbrosio@OSTERWEIS.com
Innovatus Life Sciences Lending Fund I, LP 777 Third Avenue, 25th Floor Attention: Claes Ekstrom Email: cekstrom@innovatuscp.com
Innovatus Life Sciences Offshore Fund I-A, LP 777 Third Avenue, 25th Floor Attention: Claes Ekstrom Email: cekstrom@innovatuscp.com
National Geographic Society 1145 17th Street NW Washington, DC 20036

Name and Address
Mercy College 555 Broadway Dobbs Ferry, NY 10522
Mt. Cuba Center, Inc. 3120 Barley Mill Road Hockessin, DE 19707
The Loomis Institute 4 Batchelder Road Windsor, CT 06095
Florida International University Foundation, Inc.
The Hollins University Corporation

Exhibit 10.16

March 2, 2021

Frederic Pla, Ph.D.
3244 Circa de Tierra
Encinitas, CA
92924
Frederic.pla@gmail.com

Dear Frederic,

We are very excited about the prospects of your joining Akoya Biosciences, Inc. Should you accept this offer and upon successful completion of a pre-employment background check and drug screen we look forward to having you join the company on a date that is mutually convenient for both you and Akoya. This letter confirms the terms of your employment.

Position and Duties:
You shall serve in the position of **Chief Operating Officer** with Akoya Biosciences, Inc. (the "Company") reporting to Brian McKelligon, CEO.

Your position, job description, manager, salary, duties, and responsibilities may be modified from time to time at the sole discretion of Akoya Biosciences, Inc. You agree to strictly adhere to all of the rules and regulations of Akoya Biosciences, Inc. as may be set forth in any Employee Handbook or published policies of Akoya Biosciences, Inc. now or in the future, including all amendments to the Handbook which may be made in the future in Akoya Biosciences, Inc.'s sole discretion (as published or amended from time to time, the "Manual").

Compensation:

(a) Salary: Akoya Biosciences, Inc. shall pay you, and you agree to accept from Akoya Biosciences, Inc. in payment for your services to Akoya Biosciences, Inc., a salary of **$325,000.00** per year (the "Yearly Salary"), payable in 24 equal installments of **$13,541.67** on regular semi-monthly dates established by Akoya Biosciences, Inc., subject to applicable tax withholding requirements. Any proposed increase of your salary, compensation or benefits must be approved by Akoya's CEO, Brian McKelligon.

(b) Annual Bonus. The Company has created an incentive pay plan under which you may be eligible for an **Annual cash incentive bonus** (the "Bonus"). Your target cash bonus opportunity (the "Bonus") will be equal to **45%** of your gross earnings in the calendar year. Any bonus will be based on a combination of your personal achievement as well as the Company's ability to meet its financial and operational performance objectives. The payment of any Bonus shall be subject to your continued employment through the date of payment by the Company.

(c) Incentive Stock Options. The Company will offer you participation in an **Equity Incentive Program**. Subject to approval by the Board of Directors of the Company (the "Board"), you will be provided an Option to acquire the number of shares equivalent to **850,000 shares** of the Company's common stock under the Company's stock option plan (the "Option"). 25% of the shares subject to the Option will vest on the first anniversary of your date of employment, with the remaining 75% of the shares subject to the Option vesting in equal monthly installments over the subsequent 36 months on the same day of the month as your date of employment, subject to your continued service to the Company through each applicable vesting date. The exercise price per share of the Option will be equal to the fair market value per share of the Company's common stock on the date the Option is granted, as determined by the Board in good faith. There is no guarantee that the Internal Revenue Service will agree with this value. You should consult with your own tax advisor concerning the tax consequences associated with accepting the Option.

(d) Change of Control: In the event that your employment with the Company is terminated by the Company (or its successor) without Cause (as defined in Exhibit A) or by the Constructive Termination (as defined in Exhibit A) on account of or within twelve (12) months following the date of the consummation of a Change in Control (as defined Exhibit A), (i) the vesting and exercisability of each of your outstanding stock awards (including any stock options, restricted stock or other awards granted to you by the Company) shall be automatically accelerated in full, and (ii) you will be entitled to receive your Salary, Cash Incentive Bonus paid at 100% of target and Benefits, for a period of twelve (12) months. All payments will be made in accordance with the Company's normal payroll practices. You agree that as a condition to receiving any severance compensation, you will execute and deliver to the Company a separation and release agreement pursuant to which you will release and waive all claims against the Company, its affiliates, and all of its an their present and/or former members, owners, officers, directors, employees agents attorneys and representatives.

(e) Compensation Review: In the event the Company completes and initial public offering, the Company and Board of Directors Compensation Committee agrees to review your full compensation package and make the necessary changes to bring it in alignment with market standards and the other members of the Akoya executive team.

No Other Employment:
You agree to devote your full business time, attention, and best efforts to the business of Akoya Biosciences, Inc. during the employment relationship. Akoya Biosciences, Inc.'s normal business hours are from 8:30 a.m. to 5:30 p.m., Monday through Friday. However, you may be required to work additional hours depending on the nature of your work assignments.

Time Off:
Employees at this compensation band are afforded unlimited PTO under the Akoya PTO policy as stated in the Employee Handbook.

Company Holidays:
The Company offers 9 paid Holidays per calendar year. The company holidays are listed in the benefits guide.

Benefit Plans:
You shall be entitled to participate in any standard health and other benefit plans established by Akoya Biosciences, Inc. on terms as may be established by Akoya Biosciences, Inc. in its sole discretion. Although you may be eligible for such benefits if they become available in the future, Akoya Biosciences, Inc. does not promise or represent that such benefits will in fact become available or that once made available they will be continued.

Employee Expenses:
Akoya Biosciences, Inc. will reimburse you for pre-approved business expenses, including those associated with business travel and lodging, (approved by the CEO.), as provided within the guidelines of Akoya Biosciences, Inc.'s expense policy. All expenses shall be subject to review and approval by your direct report and the CFO and shall require reasonable documentation.

Confidential Information and Invention Assignment Agreement:
As a condition of your employment with Akoya Biosciences, Inc., you acknowledge that you have executed and delivered a copy of Akoya Biosciences, Inc.'s Proprietary Information and Inventions Agreement and will abide by its terms. You acknowledge that a remedy at law for any breach or threatened breach by you of the provisions of the Proprietary Information and Inventions Agreement would be inadequate, and you therefore agree that Akoya Biosciences, Inc. shall be entitled to injunctive relief in case of any such breach or threatened breach.

At-Will Employment:
Employment with Akoya Biosciences, Inc. is employment at-will. Employment at-will may be terminated with or without cause and with or without notice at any time at the will of either you or Akoya Biosciences, Inc. Terms and conditions of employment with Akoya Biosciences, Inc. may be modified at the sole discretion of Akoya Biosciences, Inc. with or without cause and with or without notice. Other than the Chief Executive Officer ("CEO"), no one has the authority to make any agreement for employment other than for employment at-will or to make any agreement limiting Akoya Biosciences, Inc.'s discretion to modify the terms and conditions of employment. Only the CEO has the authority to make any such agreement and then only in writing and signed by each of the CEO and the respective employee. No implied contract concerning any employment-related decision or term, or condition of employment can be established by any other statement, conduct, policy, or practice.

Governing Law:
This Agreement is made and shall be construed and enforced in accordance with the laws of the State of California. This Agreement and the Exhibits supersede and replace all prior agreements or understandings, oral or written, between Akoya Biosciences, Inc., and you, except for prior confidentiality agreements, if any. This Agreement may not be modified except by a writing signed both by the CEO and by you.

Arbitration:
In the event of any dispute in connection with this Agreement or the Exhibits, the parties agree to resolve the dispute by binding arbitration in San Francisco, California, under the Commercial Arbitration Rules of the American Arbitration Association ("AAA"), with a single arbitrator familiar with employment and technology agreements appointed by AAA. In the event of any dispute, the prevailing party shall be entitled to its reasonable attorneys' fees and costs from the other party, whether the matter is litigated or arbitrated to a final judgment or award. The arbitrator's decision shall be final and binding on all parties and may be entered in any court having competent jurisdiction.

Severability:
If any provision of this Agreement or the Exhibits is determined to be invalid or unenforceable, the remainder shall be unaffected and shall be enforceable against both Akoya Biosciences, Inc., and you.

This offer is contingent upon a background check clearance, reference check, drug test, and satisfactory proof of the employee's right to work in the US, as required by law.

Employee Review and Receipt of Agreement:
You acknowledge that you have carefully read and considered all provisions of this Agreement and the Exhibits and agree that all of the restrictions set forth herein are fair and reasonably required to protect Akoya Biosciences, Inc.'s interests. You acknowledge that you have received a copy of this Agreement and the Exhibits as signed by you**. You acknowledge that, prior to signing this Agreement, you have had an opportunity to seek the advice of independent counsel of your choice relating to the terms of this Agreement.**

Sincerely,

Akoya Biosciences, Inc.

By: _____

Its: _____

Date: _____

Agreed to and Accepted:

Frederic Pla, Ph.D. [Date]

Exhibit A

"Constructive Termination" shall mean (i) without your written consent, a material reduction in your Annual Salary, Objective-Based Bonus or Benefits, other than those part of a management-wide reduction, (ii) any material failure by the Company to comply with the provisions of this Offer, (iii) any action that results in a material diminution in your title, duties or responsibilities unless such changes are mutually agreed upon, (iv) a failure of a successor-in-interest under a Change of Control to assume all of the obligations of the company under this Offer, and (v) without your written consent, a requirement of relocation to a location more than 30 miles away from your current home address. In order to establish a "Constructive Termination" for terminating employment, you must provide written notice to the Company of the existence of the condition giving rise to the Constructive Termination and the Company must be provided with thirty (30) days thereafter to cure the condition to the extent that any of such reasons are susceptible to cure, such satisfaction to be reasonably determined by you.

"Cause" shall mean: (i) any act or omission by you which has an adverse effect on the Company's business or on your ability to perform services for the Company, including, without limitation, the commission of, or a guilty or no contest plea to, any crime (other than ordinary traffic violations), (ii) refusal or failure to perform reasonably assigned duties, serious misconduct, excessive absenteeism, a breach by you of your fiduciary duty to the Company, or an act of fraud or dishonesty in the performance of your duties, (iii) refusal or failure to comply with the Company's policies, or (iv) any breach of your obligations or duties under any written agreement between the Company and you, including, without limitation, this Offer.

"Change of Control" shall mean the consummation of a reorganization, merger or consolidation, or sale or other disposition of all or substantially all of the assets of the Company, or the acquisition of assets of another corporation or entity, or other similar transaction (each, a "Business Combination"), unless, in each case, immediately following such Business Combination (A) all or substantially all of the individuals and entities who were the beneficial owners of voting stock of the Company immediately prior to such Business Combination beneficially own, directly or indirectly, more than 50% of the combined voting power of the then outstanding shares of voting stock of the entity resulting from such Business Combination (including, without limitation, an entity which as a result of such transaction owns the Company or all or substantially all of the Company's assets either directly or through one or more subsidiaries,) and (B) at least a majority of the members of the Board of Directors of the entity resulting from such Business Combination were members of the Board of Directors of the Company at the time of the execution of the initial agreement or of the action of the Board providing for such Business Combination.

Exhibit 21.1

SUBSIDIARIES OF THE REGISTRANT

Name of subsidiary	Jurisdiction of incorporation or organization
Akoya Biosciences US Ltd.	United Kingdom

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the use in this Registration Statement on Form S-1 of Akoya Biosciences, Inc. of our report dated March 12, 2021, relating to the consolidated financial statements of Akoya Biosciences, Inc. and its subsidiary, appearing in the Prospectus, which is part of this Registration Statement.

We also consent to the reference to our firm under the heading "Experts" in such Prospectus.

/s/ RSM US LLP

Boston, Massachusetts
March 26, 2021