Table of Contents

As confidentially submitted to the U.S. Securities and Exchange Commission on September 18, 2019.
This draft registration statement has not been publicly filed with the U.S. Securities and Exchange Commission and all information herein remains strictly confidential.
Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Annexon, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**2834**	**27-5414423**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

180 Kimball Way, Suite 200
South San Francisco, California 94080
(650) 822-5500
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Douglas Love, Esq.
President and Chief Executive Officer
Annexon, Inc.
180 Kimball Way, Suite 200
South San Francisco, California 94080
(650) 822-5500
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Kathleen M. Wells
Brian J. Cuneo
Latham & Watkins LLP
140 Scott Drive
Menlo Park, California 94025
(650) 328-4600

Charles S. Kim
Kristin VanderPas
Michael Tenta
David Peinsipp
Cooley LLP
4401 Eastgate Mall
San Diego, California 92121
(858) 550-6000

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

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 of 1933, 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, a 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 7(a)(2)(B) of the Securities Act. ☐

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	**Proposed maximum aggregate offering price(1)**	**Amount of registration fee(2)**
Common Stock, $0.001 par value per share	$	$

(1) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended. Includes the aggregate offering price of additional shares of common stock that the underwriters have the option to purchase.
(2) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price.

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, as amended, or until the Registration Statement shall become effective on such date as the U.S. Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

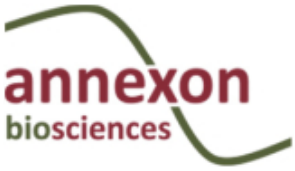
Table of Contents

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED , 2020

PRELIMINARY PROSPECTUS

Shares



Common Stock

This is an initial public offering of shares of common stock of Annexon, Inc. We are offering shares of our common stock. We currently expect the initial public offering price to be between $ and $ per share of common stock.

Prior to this offering, there has been no public market for our common stock. We intend to apply to list our common stock on the Nasdaq Global Market under the symbol "ANNX."

We are an "emerging growth company" as that term is used in the Jumpstart Our Business Startups Act of 2012 and, as such, have elected to comply with certain reduced public company reporting requirements.

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

(1) See the section titled "Underwriting" for a description of the compensation payable to the underwriters.

Investing in our common stock involves risks. See "Risk Factors" beginning on page 12 to read about factors you should consider before buying shares of our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities nor passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

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

The underwriters expect to deliver the shares against payment in New York, New York on , 2020.

J.P. Morgan **BofA Merrill Lynch** **Cowen**

Prospectus dated , 2020.

TABLE OF CONTENTS

Neither we nor the underwriters have authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus or in any applicable free writing prospectus is current only as of its date, regardless of its time of delivery or any sale of shares of our common stock. 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 possession or distribution of this prospectus or any free writing prospectus we may provide to you in connection with this offering in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus and any such free writing prospectus outside the United States.

PROSPECTUS SUMMARY

This summary highlights selected information contained in greater detail elsewhere in this prospectus. This summary is not complete and does not contain all of the information you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus. You should carefully consider, among other things, the sections titled "Risk Factors," "Special Note Regarding Forward-Looking Statements" 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. Unless the context otherwise requires, the terms "Annexon," the "company," "we," "us," "our" and similar references in this prospectus refer to Annexon, Inc. and its consolidated subsidiary.

Overview

We are a clinical-stage biopharmaceutical company developing a pipeline of novel therapies for patients with classical complement-mediated disorders of the body, eye and brain. Our pipeline is based on our platform technology addressing well-researched classical complement-mediated autoimmune and neurodegenerative disease processes, both of which are triggered by aberrant activation of C1q, the initiating molecule of the classical complement pathway. Evidence suggests that potent and selective inhibition of C1q can prevent tissue damage triggered in antibody-mediated autoimmune disease and preserve loss of functioning synapses associated with cognitive and functional decline in complement-mediated neurodegeneration. Our upstream complement approach targeting C1q acts as an "on/off switch" designed to block all downstream components of the classical complement pathway that lead to excess inflammation, tissue damage and patient disability in a host of complement-mediated disorders, while preserving the normal immune function of the lectin and alternative complement pathways involved in the clearance of pathogens and damaged cells.

Our pipeline of product candidates is designed to block the activity of C1q and the entire classical complement pathway in a broad set of complement-mediated diseases. Our first product candidate, ANX005, is a full-length monoclonal antibody formulated for intravenous administration in autoimmune and neurodegenerative disorders. Our second product candidate, ANX007, is an antigen-binding fragment, or Fab, formulated for intravitreal administration for the treatment of neurodegenerative ophthalmic disorders. We are also developing ANX009, an investigational, subcutaneous formulation designed for the treatment of systemic autoimmune diseases. We have completed Phase 1b clinical trials for ANX005 and ANX007 in patients with Guillain-Barré Syndrome, or GBS, and glaucoma, respectively. Both molecules were well-tolerated and showed full inhibition of C1q and the classical complement pathway.

Based on learnings from our initial trials, we are advancing our current programs while evaluating additional orphan and large market indications. We are also developing novel product candidates designed to inhibit C1q and other components of the early classical complement cascade with the goal of further broadening our portfolio. Finally, we are leveraging our disciplined development strategy in early clinical trials utilizing established biomarkers in an effort to enhance patient selection, measure target engagement and assess our product candidates' potential to meaningfully impact the disease process and improve the probability of technical success over shorter development timelines.

We hold worldwide development and commercialization rights to all of our product candidates, which allows us to strategically maximize value from our product portfolio over time. Our patent portfolio includes patent protection for our upstream complement platform and each of our product candidates.

The complement system is an integral component of the immune system that consists of many circulating and locally-produced molecules. This system evolved to enhance, or complement, other components of the adaptive and innate immune systems. The complement system rapidly responds to pathogens, damaged cells and unwanted tissue components to facilitate their removal by the immune system.

There are three main complement pathways—the classical, lectin and alternative pathways. Each pathway is initiated by different molecules that respond to distinct triggers. The classical pathway is initiated by C1q, which recognizes antibody complexes, specific pathogens, damaged cells or unwanted cellular components. While the lectin and alternative pathways are initiated by distinct molecules, all three pathways converge downstream on common pathway components known as C3 and C5. Specific activated components of the complement cascade, triggered by any of the pathways, have important immune functions that contribute to three key outcomes involving immune cell recruitment and inflammation, directed immune cell attack and membrane damage.

The classical complement cascade has a well-established role in augmenting antibody function within the immune system. C1q recognizes antibodies bound to pathogens or cells and activates the classical pathway to trigger their removal and clearance by the immune system. C1q can also directly recognize pathogens, damaged cells or unwanted cellular components leading to similar downstream clearance. A more recent finding made by the laboratory of the late Dr. Ben Barres, our scientific founder, is that C1q also directly interacts with neuronal connections, or synapses, during early development. Recognition of weaker synapses by C1q triggers the classical complement cascade and directs immune cells to “prune” the synapses away from neurons, thereby reinforcing stronger synapses to establish appropriate neuronal connections.

Because of its central role in immune function, aberrant activation of C1q and the classical complement cascade can lead to damage or destruction of healthy tissue. We are focused on two distinct disease processes involving this common mechanism: antibody-mediated autoimmune disease and complement-mediated neurodegeneration. To our knowledge, our two clinical-stage product candidates, ANX005 and ANX007, are the first clinical-stage product candidates designed to inhibit C1q and the entire classical complement pathway. By inducing full inhibition of C1q and the classical cascade, we seek to block activation of all downstream components and outcomes of the classical pathway, while leaving the lectin and alternative pathways intact to perform their normal immune functions.

We believe our approach has broad utility for the treatment of antibody-mediated autoimmune disease and complement-mediated neurodegeneration, in which full inhibition of the entire classical complement cascade may be beneficial. Our initial indications represent our beachhead within both disease areas, and we will selectively pursue both orphan and larger patient population diseases with clear biological evidence of classical complement activation. We are also developing novel product candidates targeting C1q and additional components of the classical complement cascade, and will utilize different drug modalities to target these components.

We are deploying a disciplined, biomarker-driven development strategy designed to establish confidence that each of our product candidates is engaging the specific target at a well-tolerated therapeutic dose in the intended patient tissue. We design small, early-stage clinical trials to rigorously evaluate the product candidate using target engagement and pharmacodynamic biomarkers. We are utilizing sensitive, specific assays for C1q and downstream classical complement components to evaluate target engagement in patient tissues and employ biomarkers, such as neurofilament light chain, or NfL, to provide proof-of-concept in small patient trials. We believe that this development strategy allows us to make rational decisions regarding our therapeutic pipeline, increasing the probability of technical success over shorter development timelines for product candidates we advance into later stage trials.

Annexon was co-founded by Dr. Ben Barres, former member of the National Academy of Sciences, Chair of Neurobiology at Stanford University and a pioneer in complement-mediated neurodegeneration, and Dr. Arnon Rosenthal, a world-renowned scientist and industry executive. We have assembled a seasoned and accomplished management team that has been involved in the development, approval and commercialization of numerous marketed drugs, and has been studying the complement pathway and autoimmune and neurodegenerative disorders for decades. Our team is further supported by an experienced scientific advisory board and leading

healthcare investors that share our commitment to advancing transformative medicines for patients suffering from debilitating autoimmune and neurodegenerative diseases. Our key investors include Adage, Bain Capital, Blackstone (Clarus), New Enterprise Associates, Novartis Venture Fund, Satter Investment Management and Surveyor (Citadel).

Our Pipeline

Our pipeline is focused on antibody-mediated autoimmune and complement-mediated neurodegenerative disorders for which there is significant unmet medical need. Our product candidates are summarized below:

* Following clearance of the applicable investigational new drug applications, we intend to initiate Phase 2 clinical trials in the follow-on disease indications for ANX005.

Our first clinical-stage product candidate is ANX005, an investigational monoclonal antibody designed to block C1q and activation of the classical complement cascade. For GBS, ANX005 is designed to act early in the disease course to prevent nerve damage and irreversible neurological disability in GBS patients. In the Phase 1b dose-ranging trial in GBS patients, ANX005 was well-tolerated and resulted in full and prolonged C1q engagement and classical cascade inhibition in the blood and cerebrospinal fluid, or CSF. Patients treated with ANX005 also showed positive numerical trends across key GBS outcome measures, and a significant reduction in NfL, a well-accepted marker of nerve damage in neurodegenerative disease that has been shown to correlate with disease severity and clinical outcomes. GBS is a rare, acute, antibody-mediated autoimmune disease impacting the peripheral nervous system. There are currently no approved therapies for GBS in the United States, but intravenous immunoglobulin, or IVIg, and plasma exchange are the current standard of care in the Western world and parts of Asia.

We expect to initiate a trial of ANX005 in combination with IVIg by the end of 2019 and intend to advance ANX005 into a Phase 2 monotherapy trial for the treatment of GBS in the first half of 2020. We anticipate that the results from these trials will enable a global Phase 3 pivotal trial of ANX005 in combination with IVIg. ANX005 has received both Orphan Drug and Fast Track designations from the U.S. Food and Drug Administration, or FDA, for the treatment of GBS.

Beyond GBS, we also intend to study ANX005 in patients with warm autoimmune hemolytic anemia, or wAIHA, an antibody-mediated autoimmune disease characterized by the premature destruction of red blood cells. The classical complement pathway plays an important role in wAIHA through the removal of red blood cells labeled by activated complement components in the spleen or liver (extra-vascular hemolysis) and less

common destruction of red blood cells in the blood vessels by the classical complement generated membrane attack complex (intravascular hemolysis). We plan to initiate a Phase 2 trial in patients with the primary diagnosis of wAIHA in 2020. With regard to complement-mediated neurodegeneration, we intend to study ANX005 in patients with Huntington's disease, or HD, as well as patients with amyotrophic lateral sclerosis, or ALS—two neurodegenerative disorders where aberrant classical complement activation has been shown to be associated with synapse loss, elevated levels of NfL and disease progression. We plan to initiate Phase 2a trials in patients with HD in the first half of 2020 and in patients with ALS in 2020 to assess ANX005's safety, tolerability, target engagement and impact on disease-related biomarkers such as NfL.

Our second clinical-stage product candidate is ANX007, an investigational C1q Fab designed for intravitreal administration in patients with complement-mediated neurodegenerative ophthalmic disorders. Consistent with the results we observed in preclinical studies, in the Phase 1b trial with intravitreal administration in glaucoma patients, ANX007 was well-tolerated and showed full target engagement and inhibition of C1q in the eye for at least four weeks. We believe inhibition of C1q may provide neuroprotective benefit by preventing the aberrant loss of functioning synapses in the retina in a variety of ophthalmic disorders, including glaucoma and geographic atrophy, or GA. Based on preclinical data, clinical results observed to date, proximate clinical validation and an established, objective clinical and regulatory path, we are planning a Phase 2 trial of ANX007 in patients with GA in 2020 with the goal of protecting against the loss of photoreceptor neurons in a well-defined patient population.

Our preclinical pipeline includes ANX009, an investigational C1q Fab designed for subcutaneous delivery. We are developing ANX009 to enable chronic dosing for patients with antibody-mediated autoimmune disorders where anti-C1q may have a disease-modifying effect and where we can utilize our targeted biomarker-driven approach. These disorders may include autoimmune hemolytic anemias and a subset of lupus nephritis patients who are selected for pathogenic anti-C1q antibodies, or PACA, and who have a high risk of renal flare. We intend to advance ANX009 through investigational new drug, or IND, enabling studies, select our initial lead autoimmune disease indication and commence a clinical trial in healthy volunteers in 2020.

Our Strategy

Our goal is to develop disease-modifying medicines for patients suffering from classical complement-mediated diseases. Key elements of our strategy include:

- ***Leveraging our distinct approach of inhibiting C1q and aberrant upstream classical complement activity to address a broad range of well characterized classical complement-mediated diseases.*** By inhibiting C1q and the early classical cascade, we believe our product candidates are uniquely designed to address a wide range of antibody-mediated autoimmune diseases as well as complement-mediated neurodegenerative disorders. We believe full classical complement inhibition may result in clinical benefit by blocking aberrant upstream immune cell activation in our targeted indications and potentially provide safety advantages by leaving the lectin and alternative pathways intact to perform their normal immune functions.
- ***Advancing ANX005 through clinical development in multiple autoimmune and neurodegenerative indications of high unmet need.*** Our Phase 1b trial in patients with GBS demonstrated full target engagement of C1q in serum and the CSF, as well as a significant reduction in NfL, a well-accepted biomarker shown to be elevated in patients with GBS, HD and ALS and correlated with disease severity and clinical course and outcomes. We intend to advance ANX005 into a Phase 2 monotherapy trial in patients with GBS in the first half of 2020, and into Phase 2a trials in patients with HD in the first half of 2020 and in patients with ALS in 2020. We also intend to advance ANX005 into a Phase 2 trial in patients with wAIHA in 2020.

- ***Evaluating ANX007 as an agent for neuroprotective benefit in ophthalmic indications.*** We are developing ANX007 in neurodegenerative ophthalmic indications, such as glaucoma and GA. ANX007 reduced retinal damage in animal models of glaucoma and GA. In our Phase 1b trial in glaucoma patients, intravitreal administration of ANX007 resulted in full target engagement of C1q at both low and high doses. Based on this clinical dosing data, our preclinical data in glaucoma and GA, and proximate clinical validation from a downstream complement approach, we believe that ANX007 may provide neuroprotective benefit in patients with these and other complement-mediated ophthalmic disorders.
- ***Expanding our autoimmune and neurodegenerative portfolios informed by data from our beachhead indications.*** Our initial indications represent our beachhead within antibody-mediated autoimmune and complement-mediated neurodegenerative diseases. We intend to leverage learnings from our initial indications to inform selection of additional orphan and larger patient populations involving related biological mechanisms. In our autoimmune portfolio, potential indications include antibody-mediated autoimmune disorders such as wAIHA, Cold Agglutinin Disease, or CAD, and lupus nephritis, (specifically in lupus nephritis patients with endogenous PACA). In our neurodegenerative portfolio, potential indications include complement-mediated neurodegeneration disorders in the eye and brain such as glaucoma, GA, progressive multiple sclerosis and Alzheimer's disease.
- ***Developing additional product candidates that are designed to inhibit activation of the classical complement cascade.*** We have secured broad intellectual property protection for our upstream complement platform and intend to leverage our intellectual property and know-how to protect and enhance our leading position in developing novel therapeutics that target the classical complement cascade. We are developing product candidates, such as ANX009, to modulate the classical pathway with the potential to become tailored therapeutics for a large range of indications using different molecular modalities, dosing regimens and tissue localization strategies.
- ***Maximizing the value of our product candidates.*** We currently hold worldwide development and commercialization rights to all of our product candidates. We intend to pursue independent development and commercialization in select indications and markets that we can address with a focused sales and marketing organization. We may opportunistically explore licensing agreements, collaborations or partnerships to develop our product candidates in larger market indications where we could accelerate development utilizing the resources of larger biopharmaceutical companies.

Risks Associated with Our Business

Our business is subject to a number of risks of which you should be aware before making a decision to invest in our common stock. These risks are more fully described in the section titled "Risk Factors" immediately following this prospectus summary. These risks include, among others, the following:

- We are a clinical-stage biopharmaceutical company with a limited operating history and no products approved for commercial sale. We have incurred significant losses since our inception, and we anticipate that we will continue to incur significant losses for the foreseeable future, which, together with our limited operating history, makes it difficult to assess our future viability.
- We will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our product development programs, commercialization efforts or other operations.
- Our business is heavily dependent on the successful development, regulatory approval and commercialization of our two clinical-stage product candidates, ANX005 and ANX007, each of which is in early stages of clinical development.

- Research and development of biopharmaceutical products is inherently risky. We cannot give any assurance that any of our product candidates will receive regulatory approval, which is necessary before they can be commercialized.
- Our product candidates may cause undesirable and unforeseen side effects or have other properties that could halt their clinical development, delay or prevent their regulatory approval, limit their commercial potential or result in significant negative consequences.
- We rely on third-party suppliers to manufacture our product candidates, and we intend to rely on third parties to produce commercial supplies of any approved product. The loss of these suppliers, or their failure to comply with applicable regulatory requirements or to provide us with sufficient quantities at acceptable quality levels or prices, or at all, would materially and adversely affect our business.
- Any collaboration arrangements that we may enter into in the future may not be successful, which could adversely affect our ability to develop and commercialize our product candidates.
- Our current and any future product candidates or products could be alleged to infringe patent rights and other proprietary rights of third parties, which may require costly litigation and, if we are not successful, could cause us to pay substantial damages and/or limit our ability to commercialize our products.
- We have identified a material weakness in our internal control over financial reporting and may identify additional material weaknesses in the future or otherwise fail to maintain an effective system of internal controls, which may result in material misstatements of our financial statements or cause us to fail to meet our periodic reporting obligations.

Our Corporate Information

We were incorporated under the laws of the State of Delaware on March 3, 2011. Our principal executive offices are located at 180 Kimball Way, Suite 200, South San Francisco, California 94080, and our telephone number is (650) 822-5500. Our corporate website address is www.annexonbio.com. Information contained on, or accessible through, our website shall not be deemed incorporated into and is not a part of this prospectus or the registration statement of which it forms a part. We have included our website in this prospectus solely as an inactive textual reference.

Implications of Being an Emerging Growth Company

We are an emerging growth company as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. We will remain an emerging growth company until the earliest of (i) the last day of the fiscal year following the fifth anniversary of the consummation of this offering, (ii) the last day of the fiscal year in which we have total annual gross revenue of at least $1.07 billion, (iii) the last day of the fiscal year in which we are deemed to be a “large accelerated filer” as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, which would occur if the market value of our common stock held by non-affiliates exceeded $700.0 million as of the last business day of the second fiscal quarter of such year, or (iv) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period. An emerging growth company may take advantage of specified reduced reporting requirements and is relieved of certain other significant requirements that are otherwise generally applicable to public companies. As an emerging growth company:

- We will present in this prospectus only two years of audited consolidated financial statements, plus unaudited condensed consolidated financial statements for any interim period, and related management’s discussion and analysis of financial condition and results of operations;

- We will avail ourselves of the exemption from the requirement to obtain an attestation and report from our auditors on the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act of 2002;
- We will provide less extensive disclosure about our executive compensation arrangements; and
- We will not require stockholder non-binding advisory votes on executive compensation or golden parachute arrangements.

Accordingly, the information contained herein may be different than the information you receive from our competitors that are public companies or other public companies in which you hold stock.

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 provision allows an emerging growth company to delay the adoption of some accounting standards until those standards would otherwise apply to private companies. We have elected to avail ourselves of this exemption from new or revised accounting standards, and therefore we will not be subject to the same requirements to adopt new or revised accounting standards as other public companies that are not emerging growth companies.

The Offering

Common stock offered by us	shares.
Option to purchase additional shares	The underwriters have been granted an option to purchase up to additional shares of common stock from us at any time within 30 days from the date of this prospectus.
Common stock to be outstanding after this offering	shares (or shares if the underwriters exercise their option to purchase additional shares in full).
Use of proceeds	We estimate that the net proceeds from this offering will be approximately $ million (or approximately $ million if the underwriters exercise in full their option to purchase up to additional shares of common stock), based on 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 estimated underwriting discounts and commissions and estimated offering expenses payable by us. We currently intend to use the net proceeds from this offering, together with our existing cash and cash equivalents, to fund: the Phase 2 and drug-drug interaction clinical trials of ANX005 in GBS and Good Manufacturing Practices, or GMP, manufacturing activities for ANX005; the Phase 2a clinical trials of ANX005 in HD and ALS and the Phase 2 clinical trial of ANX005 in wAIHA; the preparation for Phase 2 clinical development of ANX007 in GA and GMP manufacturing activities for ANX007; and advancement of our earlier-stage programs, including ANX009, and certain other research and development activities; and the remainder for working capital and other general corporate purposes. See the section titled “Use of Proceeds” for additional information.
Risk factors	You should read the section titled “Risk Factors” for a discussion of factors to consider carefully, together with all the other information included in this prospectus, before deciding to invest in our common stock.
Proposed Nasdaq Global Market symbol	“ANNX”

The number of shares of our common stock to be outstanding after this offering is based on 115,569,451 shares of common stock as of August 30, 2019 (including the sale and issuance of 22,222,217 shares of our Series C redeemable convertible preferred stock on August 30, 2019 in satisfaction of the second tranche of our Series C financing), and excludes:

- 18,588,587 shares of our common stock issuable upon the exercise of outstanding stock options as of June 30, 2019, with a weighted-average exercise price of $0.54 per share;
- shares of our common stock issuable upon the exercise of outstanding stock options granted subsequent to June 30, 2019, with a weighted-average exercise price of $ per share;
- shares of our common stock reserved for future issuance under our 2020 Incentive Award Plan, or the 2020 Plan, which will become effective immediately prior to the execution of the underwriting agreement related to this offering, as well as any future increases in the number of shares of common stock reserved for issuance under the 2020 Plan; and
- shares of our common stock reserved for future issuance under our 2020 Employee Stock Purchase Plan, or the ESPP, which will become effective immediately prior to the execution of the underwriting agreement related to this offering, as well as any future increases in the number of shares of common stock reserved for issuance under the ESPP.

Except as otherwise indicated, all information in this prospectus assumes or gives effect to:

- the filing and effectiveness of our amended and restated certificate of incorporation immediately prior to the completion of this offering and the adoption of our amended and restated bylaws immediately prior to the completion of this offering;
- the conversion of all of our outstanding shares of redeemable convertible preferred stock into 111,748,065 shares of our common stock immediately prior to the completion of this offering;
- a -for- reverse stock split of our common stock and redeemable convertible preferred stock effected on , 2020;
- no exercise of the outstanding options; and
- no exercise by the underwriters of their option to purchase up to additional shares of our common stock.

Summary Consolidated Financial Data

The following tables set forth our summary consolidated statements of operations and consolidated balance sheet data. The summary consolidated statements of operations data for the years ended December 31, 2017 and 2018 are derived from our audited consolidated financial statements appearing elsewhere in this prospectus. The summary consolidated statements of operations data for the six months ended June 30, 2018 and 2019 and the summary consolidated balance sheet data as of June 30, 2019 are derived from our unaudited interim condensed consolidated financial statements included elsewhere in this prospectus. The unaudited interim condensed consolidated financial statements were prepared on a basis consistent with our audited consolidated financial statements and include, in management's opinion, all adjustments, consisting only of normal recurring adjustments that we consider necessary for a fair presentation of the financial information set forth in those statements. Our historical results are not necessarily indicative of the results that may be expected for any period in the future and our interim results are not necessarily indicative of our expected results for the year ending December 31, 2019. You should read the following summary consolidated financial data together with the section titled "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.

	Year Ended December 31,		Six Months Ended June 30,	
	2017	2018	2018	2019
			(unaudited)	
	(in thousands, except share and per share data)			
Consolidated Statements of Operations Data:				
Operating expenses:				
Research and development	$ 17,853	$ 15,528	$ 7,774	$ 10,640
General and administrative	2,624	3,619	1,760	3,679
Total operating expenses	20,477	19,147	9,534	14,319
Loss from operations	(20,477)	(19,147)	(9,534)	(14,319)
Gain (loss) on remeasurement of redeemable convertible preferred stock liability	—	260	—	(4,330)
Other income, net	1,770	584	60	597
Net loss before taxes	(18,707)	(18,303)	(9,474)	(18,052)
Provision for income taxes	1	1	1	1
Net loss	(18,708)	(18,304)	(9,475)	(18,053)
Accretion on redeemable convertible preferred stock	87	176	50	534
Net loss attributable to common stockholders	$ (18,795)	$ (18,480)	$ (9,525)	$ (18,587)
Net loss per share attributable to common stockholders, basic and diluted[1]	$ (6.16)	$ (5.21)	$ (2.90)	$ (4.86)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted[1]	3,051,792	3,548,177	3,283,337	3,821,386
Pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)[1]		$		$
Weighted-average shares used in computing pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)[1]				

(1) See Notes 2 and 11 to our audited consolidated financial statements and Notes 2 and 10 to our unaudited interim condensed consolidated financial statements included elsewhere in this prospectus for explanations of the calculations of our basic and diluted net loss per share, basic and diluted pro forma net loss per share and the weighted-average number of shares used in the computation of the per share amounts.

	As of June 30, 2019		
	Actual	Pro Forma(1)	Pro Forma As Adjusted(2) (3)
		(unaudited) (in thousands)	
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$ 31,451	$	$
Working capital(4)	29,578		
Total assets	35,719		
Redeemable convertible preferred stock liability	9,470		
Redeemable convertible preferred stock	102,616		
Accumulated deficit	(83,450)		
Total stockholders' (deficit) equity	(81,893)		

(1) The pro forma column reflects: (i) the sale and issuance of 22,222,217 shares of our Series C redeemable convertible preferred stock for aggregate gross proceeds of approximately $30.0 million on August 30, 2019 in satisfaction of the second tranche of our Series C financing; (ii) the conversion of all of our outstanding shares of redeemable convertible preferred stock into 111,748,065 shares of our common stock, which will occur immediately prior to the completion of this offering; (iii) the reclassification of the redeemable convertible preferred stock liability to additional paid-in capital as the obligation to issue additional shares of our Series C redeemable convertible preferred stock was satisfied in connection with the closing of the second tranche of our Series C financing; and (iv) the filing and effectiveness of our amended and restated certificate of incorporation in Delaware, which will be in effect immediately prior to the completion of this offering.

(2) The pro forma as adjusted column reflects: (i) the pro forma adjustments set forth in footnote (1) above; and (ii) the sale of shares of our 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 estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(3) The pro forma as adjusted information discussed above is illustrative only and will depend on the actual initial public offering price and other terms of this offering determined at pricing. Each $1.00 increase or 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 or decrease, as applicable, each of our pro forma as adjusted cash and cash equivalents, working capital, total assets and total stockholders' equity by approximately $ million, assuming the number of shares of common stock offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase or decrease of 1.0 million shares of common stock offered by us would increase or decrease, as applicable, each of our pro forma as adjusted cash and cash equivalents, working capital, total assets and total stockholders' equity by approximately $ million, assuming the assumed initial public offering price of $ per share remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(4) We define working capital as current assets less current liabilities. See our unaudited interim condensed consolidated financial statements and the 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 carefully consider the risks described below, as well as the other information in this prospectus, including our consolidated financial statements and the related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations," before deciding whether to invest in our common stock. The occurrence of any of the events or developments described below could materially and adversely affect our business, financial condition, results of operations and prospects. In such an event, the market price of our common stock could decline and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations.

Risks Related to Our Limited Operating History, Financial Condition and Capital Requirements

We are a clinical-stage biopharmaceutical company with a limited operating history and no products approved for commercial sale. We have incurred significant losses since our inception, and we anticipate that we will continue to incur significant losses for the foreseeable future, which, together with our limited operating history, makes it difficult to assess our future viability.

We are a clinical-stage biopharmaceutical company, and we have only a limited operating history upon which you can evaluate our business and prospects. Biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of risk. We have no products approved for commercial sale and have not generated any revenue from sales of our product candidates and have incurred losses in each year since our inception in March 2011. We have only a limited operating history upon which you can evaluate our business and prospects. In addition, we have not yet demonstrated an ability to successfully overcome many of the risks and uncertainties frequently encountered by companies in new and rapidly evolving fields, particularly in the pharmaceutical, biopharmaceutical and biotechnology industry.

We have had significant operating losses since our inception. Our net loss for the years ended December 31, 2017 and 2018 was approximately $18.7 million and $18.3 million, respectively, and $9.5 million and $18.1 million for the six months ended June 30, 2018 and 2019, respectively. As of June 30, 2019, we had an accumulated deficit of approximately $83.5 million. Substantially all of our losses have resulted from expenses incurred in connection with our research and development programs and from general and administrative costs associated with our operations. We expect to continue to incur losses for the foreseeable future, and we anticipate these losses will increase as we continue to develop our product candidates, conduct clinical trials and pursue research and development activities. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods. Our prior losses, combined with expected future losses, have had and will continue to have an adverse effect on our stockholders' equity and working capital.

We will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our product development programs, commercialization efforts or other operations.

Since our inception, we have invested a significant portion of our efforts and financial resources in research and development activities. Our product candidates will require additional clinical development, and we intend to conduct additional research and development activities to discover and develop new product candidates, including conducting preclinical studies and clinical trials, all of which will require substantial additional funds. We will continue to expend significant resources for the foreseeable future in connection with these activities. These expenditures will include costs associated with conducting preclinical studies and clinical trials, obtaining regulatory approvals and manufacturing and supply, as well as marketing and selling any products approved for sale. In addition, other unanticipated costs may arise. Because the outcome of any preclinical study or clinical trial is highly uncertain, we cannot reasonably estimate the actual amounts necessary to successfully complete the development and commercialization of our product candidates or any future product candidates.

As of June 30, 2019, we had capital resources consisting of cash and cash equivalents of approximately $31.5 million. We expect our existing capital resources, together with the proceeds from this offering, will fund our planned operating expenses for at least the next months following the date of this offering. However, our operating plans may change as a result of many factors currently unknown to us, and we may need to seek additional funds sooner than planned through public or private equity offerings or debt financings or other sources, such as strategic collaborations. Such financing may result in dilution to our stockholders, imposition of burdensome debt covenants and repayment obligations, or other restrictions that may affect our business. In addition, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans.

Our future capital requirements depend on many factors, including:

- the scope, progress, results and costs of researching and developing our current product candidates or any other future products candidates we choose to pursue, and conducting preclinical studies and clinical trials, including our planned Phase 2 clinical trials of ANX005 and ANX007;
- the timing of, and the costs involved in, obtaining regulatory approvals for our product candidates or any future product candidates;
- the number and characteristics of any additional product candidates we develop or acquire;
- the timing and amount of any milestone, royalty and/or other payments we are required to make pursuant to our current or any future license or collaboration agreements;
- the cost of manufacturing our product candidates or any future product candidates and any products we successfully commercialize;
- the cost of building a sales force in anticipation of product commercialization;
- the cost of commercialization activities of our product candidates, if approved for sale, including marketing, sales and distribution costs;
- our ability to establish strategic collaborations, licensing or other arrangements and the financial terms of any such agreements, including the timing and amount of any future milestone, royalty or other payments due under any such agreement;
- any product liability or other lawsuits related to our products;
- the expenses needed to attract, hire and retain skilled personnel;
- the costs associated with being a public company;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing our intellectual property portfolio; and
- the timing, receipt and amount of sales of any future approved products.

Additional funds may not be available when we need them, on terms that are acceptable to us, or at all. If adequate funds are not available to us on a timely basis, we may be required to:

- delay, limit, reduce or terminate preclinical studies, clinical trials or other development activities for our product candidates or any future product candidate;
- delay, limit, reduce or terminate our research and development activities; or
- delay, limit, reduce or terminate our efforts to establish manufacturing and sales and marketing capabilities or other activities that may be necessary to commercialize our product candidates or any future product candidate, or reduce our flexibility in developing or maintaining our sales and marketing strategy.

We also could be required to seek funds through arrangements with collaborators or others that may require us to relinquish rights to some of our technologies or product candidates that we would otherwise pursue on our own. We do not expect to realize revenue from sales of products or royalties from licensed products in the foreseeable future, if at all, and unless and until our product candidates are clinically tested, approved for commercialization and successfully marketed. To date, we have primarily financed our operations through the sale of equity securities. We will be required to seek additional funding in the future and currently intend to do so through public or private equity offerings or debt financings, credit or loan facilities, collaborations or a combination of one or more of these funding sources. Our ability to raise additional funds will depend on financial, economic and other factors, many of which are beyond our control. Additional funds may not be available to us on acceptable terms or at all. If we raise additional funds by issuing equity securities, our stockholders will suffer dilution and the terms of any financing may adversely affect the rights of our stockholders. In addition, as a condition to providing additional funds to us, future investors may demand, and may be granted, rights superior to those of existing stockholders. Debt financing, if available, is likely to involve restrictive covenants limiting our flexibility in conducting future business activities, and, in the event of insolvency, debt holders would be repaid before holders of our equity securities received any distribution of our corporate assets.

Due to the significant resources required for the development of our product candidates, we must prioritize development of certain product candidates and/or certain disease indications. We may expend our limited resources on candidates or indications that do not yield a successful product and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

We are currently focused on developing product candidates to address classical complement-mediated autoimmune and neurodegenerative diseases. We seek to maintain a process of prioritization and resource allocation among our programs to maintain a balance between aggressively advancing our two clinical-stage product candidates, ANX005 and ANX007, in identified indications and exploring additional indications or mechanisms as well as developing future product candidates. However, due to the significant resources required for the development of our product candidates, we must focus on specific diseases and disease pathways and decide which product candidates to pursue and the amount of resources to allocate to each such product candidate.

Our decisions concerning the allocation of research, development, collaboration, management and financial resources toward particular product candidates or therapeutic areas may not lead to the development of any viable commercial product and may divert resources away from better opportunities. Similarly, any decision to delay, terminate or collaborate with third parties in respect of certain programs may subsequently also prove to be suboptimal and could cause us to miss valuable opportunities. If we make incorrect determinations regarding the viability or market potential of any of our programs or product candidates or misread trends in the autoimmune or neurodegenerative or pharmaceutical, biopharmaceutical or biotechnology industry, our business, financial condition and results of operations could be materially adversely affected. As a result, we may fail to capitalize on viable commercial products or profitable market opportunities, be required to forego or delay pursuit of opportunities with other product candidates or other diseases and disease pathways that may later prove to have greater commercial potential than those we choose to pursue, or relinquish valuable rights to such product candidates through collaboration, licensing or other royalty arrangements in cases in which it would have been advantageous for us to invest additional resources to retain development and commercialization rights.

Our operating results may fluctuate significantly, 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 may fluctuate significantly, 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 and may be difficult to predict, including:

- the timing and cost of, and level of investment in, research, development and, if approved, commercialization activities relating to our product candidates, which may change from time to time;
- the timing and status of enrollment for our clinical trials;
- the cost of manufacturing our product candidates, as well as building out our supply chain, which may vary depending on the quantity of production and the terms of our agreements with manufacturers;
- expenditures that we may incur to acquire, develop or commercialize additional product candidates and technologies;
- timing and amount of any milestone, royalty or other payments due under any collaboration or license agreement;
- future accounting pronouncements or changes in our accounting policies;
- the timing and success or failure of preclinical studies and clinical trials for our product candidates or competing product candidates, or any other change in the competitive landscape of our industry, including consolidation among our competitors or partners;
- the timing of receipt of approvals for our product candidates from regulatory authorities in the United States and internationally;
- coverage and reimbursement policies with respect to our product candidates, if approved, and potential future drugs that compete with our products; and
- the level of demand for our product candidates, if approved, which may vary significantly over time.

The cumulative effects of these factors 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.

This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our revenue or operating results fall below the expectations of analysts or investors or below any forecasts we may provide to the market, or if any forecasts we provide to the market are below the expectations of analysts or investors, the price of our common stock could decline substantially. Such a stock price decline could occur even when we have met any previously publicly stated revenue or earnings guidance we may provide.

Risks Related to Our Business

Our business is heavily dependent on the successful development, regulatory approval and commercialization of our two clinical-stage product candidates, ANX005 and ANX007, each of which is in early stages of clinical development.

We have no products approved for sale, and our two clinical-stage product candidates are in early stages of clinical development. The success of our business, including our ability to finance our company and generate revenue in the future, will primarily depend on the successful development, regulatory approval and commercialization of our product candidates and, in particular, the advancement of our current clinical-stage product candidates, ANX005 and ANX007. However, given our stage of development, it may be many years, if we succeed at all, before we have demonstrated the safety and efficacy of a product candidate sufficient to warrant approval for commercialization. We cannot be certain that our product candidates will receive regulatory approval or be successfully commercialized even if we receive regulatory approval.

While inhibition of the complement pathway has been validated as a therapeutic approach, C1q inhibition is a novel therapeutic approach, which exposes us to certain risks. For example, we may discover unforeseen safety events or that our product candidates do not possess certain properties required for therapeutic effectiveness, or that even if found to be effective in one type of disease, a product candidate, or the therapeutic approach, is not effective in other diseases. In addition, given the novel nature of this therapeutic approach, designing preclinical studies and clinical trials to demonstrate the effect of the product candidates is complex and exposes us to risks, including that our biomarker-driven approach may not translate into therapeutic effectiveness.

In the future, we may also become dependent on other product candidates that we may develop or acquire. The clinical and commercial success of our product candidates and future product candidates will depend on a number of factors, including the following:

- our ability to raise any additional required capital on acceptable terms, or at all;
- our ability to complete an investigational new drug application, or IND, enabling studies and successfully submit INDs or comparable applications;
- timely completion of our preclinical studies and clinical trials, which may be significantly slower or cost more than we currently anticipate and will depend substantially upon the performance of third-party contractors;
- whether we are required by the U.S. Food and Drug Administration, or FDA, or similar foreign regulatory agencies to conduct additional clinical trials or other studies beyond those planned to support the approval and commercialization of our product candidates or any future product candidates;
- acceptance of our proposed indications and primary endpoint assessments relating to the proposed indications of our product candidates by the FDA and similar foreign regulatory authorities;
- our ability to demonstrate to the satisfaction of the FDA and similar foreign regulatory authorities the safety, efficacy and acceptable risk to benefit profile of our product candidates or any future product candidates;
- the prevalence, duration and severity of potential side effects or other safety issues experienced with our product candidates or future approved products, if any;
- the timely receipt of necessary marketing approvals from the FDA and similar foreign regulatory authorities;
- achieving and maintaining, and, where applicable, ensuring that our third-party contractors achieve and maintain compliance with our contractual obligations and with all regulatory requirements applicable to our product candidates or any future product candidates or approved products, if any;
- the ability of third parties with whom we contract to manufacture adequate clinical trial and commercial supplies of our product candidates or any future product candidates remain in good standing with regulatory agencies and develop, validate and maintain commercially viable manufacturing processes that are compliant with current good manufacturing practices, or cGMP;
- our ability to successfully develop a commercial strategy and thereafter commercialize our product candidates or any future product candidates in the United States and internationally, if approved for marketing, reimbursement, sale and distribution in such countries and territories, whether alone or in collaboration with others;
- our ability to achieve sufficient market acceptance, coverage and adequate reimbursement from third-party payors and adequate market share and revenue for any approved products;
- the convenience of our treatment or dosing regimen;
- acceptance by physicians, payors and patients of the benefits, safety and efficacy of our product candidates or any future product candidates, if approved, including relative to alternative and competing treatments;

- the willingness of physicians, operators of clinics and patients to utilize or adopt any of our product candidates or any future product candidates, if approved;
- patient demand for our product candidates, if approved, including patients' willingness to pay out-of-pocket for any approved products in the absence of coverage and/or adequate reimbursement from third-party payors;
- our ability to establish and enforce intellectual property rights in and to our product candidates or any future product candidates; and
- our ability to avoid third-party patent interference, intellectual property challenges or intellectual property infringement claims.

These factors, many of which are beyond our control, could cause us to experience significant delays or an inability to obtain regulatory approvals or commercialize our product candidates. Even if regulatory approvals are obtained, we may never be able to successfully commercialize any of our product candidates. Accordingly, we cannot provide assurances that we will be able to generate sufficient revenue through the sale of our product candidates or any future product candidates to continue our business or achieve profitability.

Research and development of biopharmaceutical products is inherently risky. We cannot give any assurance that any of our product candidates will receive regulatory approval, which is necessary before they can be commercialized.

We are at an early stage of clinical development of our product candidates. Our future success is dependent on our ability to successfully develop, obtain regulatory approval for and then successfully commercialize our product candidates, and we may fail to do so for many reasons, including the following:

- our product candidates may not successfully complete preclinical studies or clinical trials;
- a product candidate may on further study be shown to have harmful side effects or other characteristics that indicate it does not meet applicable regulatory criteria;
- our competitors may develop therapeutics that render our product candidates obsolete or less attractive;
- the market for a product candidate may change so that the continued development of that product candidate is no longer reasonable or commercially attractive;
- a product candidate may not be capable of being produced in commercial quantities at an acceptable cost, or at all;
- if a product candidate obtains regulatory approval, we may be unable to establish sales and marketing capabilities, or successfully market such approved product candidate; and
- a product candidate may not be accepted as safe and effective by patients, the medical community or third-party payors.

If any of these events occur, we may be forced to abandon our development efforts for a product candidate or candidates, which would have a material adverse effect on our business and could potentially cause us to cease operations. Failure of a product candidate may occur at any stage of preclinical or clinical development, and we may never succeed in developing marketable products or generating product revenue.

We may not be successful in our efforts to further develop our current and future product candidates. We are not permitted to market or promote any of our product candidates before we receive regulatory approval from the FDA or comparable foreign regulatory authorities, and we may never receive such regulatory approval for any of our product candidates. Each of our product candidates will require significant additional clinical development, management of preclinical, clinical and manufacturing activities, regulatory approval, adequate manufacturing supply, a commercial organization and significant marketing efforts before we generate any revenue from

product sales, if at all. Any clinical studies that we may conduct may not demonstrate the efficacy and safety necessary to obtain regulatory approval to market our product candidates. If the results of our ongoing or future clinical studies are inconclusive with respect to the efficacy of our product candidates, if we do not meet the clinical endpoints with statistical significance or if there are safety concerns or adverse events associated with our product candidates, we may be prevented or delayed in obtaining marketing approval for our product candidates.

The FDA or other regulatory agencies may not agree with our clinical development plan and require that we conduct additional clinical trials to support our regulatory submissions. We have not yet conducted an end of Phase 2 meeting with the FDA to discuss the registration pathway for ANX005, and our current clinical development plans for ANX005 in Guillain-Barre Syndrome, or GBS, may change as a result of future interactions with the FDA. For example, the FDA may require that we conduct more than one pivotal trial in order to gain approval in GBS. Furthermore, any approval of ANX005 for GBS may be limited to ANX005 in combination with the existing standard of care. While not approved for use in GBS in the United States, IVIg has developed as the standard of care in the Western world and parts of Asia for patients with GBS and has been shown to be a reasonably effective treatment in some GBS patients. The trials we intend to conduct, including a planned Phase 3 in the United States and major markets, are designed to generate proof-of-concept data in GBS patients utilizing a combination of ANX005 and IVIg.

If any of our product candidates successfully completes clinical trials, we plan to seek regulatory approval to market our product candidates in the United States, the European Union and in additional foreign countries where we believe there is a viable commercial opportunity. We have never commenced, compiled or submitted an application seeking regulatory approval to market any product candidate. We may never receive regulatory approval to market any product candidates even if such product candidates successfully complete clinical trials, which would adversely affect our viability. To obtain regulatory approval in countries outside the United States, we must comply with numerous and varying regulatory requirements of such other countries regarding safety, efficacy, chemistry, manufacturing and controls, clinical trials, commercial sales, pricing and distribution of our product candidates. We may also rely on collaborators or partners to conduct the required activities to support an application for regulatory approval and to seek approval for one or more of our product candidates. We cannot be sure that any such collaborators or partners will conduct these activities successfully or do so within the timeframe we desire. Even if we or any future collaborators or partners are successful in obtaining approval in one jurisdiction, we cannot ensure that we will obtain approval in any other jurisdictions. If we are unable to obtain approval for our product candidates in multiple jurisdictions, our revenue and results of operations could be negatively affected.

Even if we receive regulatory approval to market any of our product candidates, we cannot assure you that any such product candidate will be successfully commercialized, widely accepted in the marketplace or more effective than other commercially available alternatives. Any approval we may obtain could be for indications or patient populations that are not as broad as intended or desired or may require labeling that includes significant use or distribution restrictions or safety warnings. We may also be required to perform additional or unanticipated clinical trials to obtain approval or be subject to additional post-marketing testing requirements to maintain approval. In addition, regulatory authorities may withdraw their approval of a product or impose restrictions on its distribution, such as in the form of a Risk Evaluation and Mitigation Strategy, or REMS. The failure to obtain timely regulatory approval of product candidates, any product marketing limitations or a product withdrawal would negatively impact our business, results of operations and financial condition.

We may encounter substantial delays in our clinical trials or may not be able to conduct or complete our clinical trials on the timelines we expect, if at all.

Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. We cannot guarantee that any clinical trials will be conducted as planned or completed on schedule, if at all. We cannot be sure that submission of an IND or a clinical trial application, or CTA, will result in the FDA or other regulatory authority, as applicable, allowing clinical trials to begin in a timely manner, if at all. Moreover, even if

these trials begin, issues may arise that could suspend or terminate such clinical trials. A failure of one or more clinical trials can occur at any stage of testing, and our future clinical trials may not be successful. Clinical trials can be delayed or terminated for a variety of reasons, including delays or failures related to:

- inability to generate sufficient preclinical, toxicology or other *in vivo* or *in vitro* data to support the initiation or continuation of clinical trials;
- the FDA or comparable foreign regulatory authorities disagreeing as to the design or implementation of our clinical trials;
- delays in obtaining regulatory authorization to commence a trial;
- reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- identifying, recruiting and training suitable clinical investigators;
- obtaining institutional review board, or IRB, approval at each trial site;
- imposition of a temporary or permanent clinical hold by regulatory agencies for a number of reasons, including after review of an IND or amendment, or equivalent foreign application or amendment;
- new safety findings that present unreasonable risk to clinical trial participants;
- a negative finding from an inspection of our clinical trial operations or study sites;
- recruiting an adequate number of suitable patients to participate in a trial;
- having subjects complete a trial or return for post-treatment follow-up;
- clinical sites deviating from trial protocol or dropping out of a trial;
- addressing subject safety concerns that arise during the course of a trial;
- adding a sufficient number of clinical trial sites; or
- obtaining sufficient product supply of product candidates for use in preclinical studies or clinical trials from third-party suppliers.

We may experience numerous adverse or unforeseen events during, or as a result of, preclinical studies and clinical trials which could delay or prevent our ability to receive marketing approval or commercialize our product candidates, including:

- we may receive feedback from regulatory authorities that requires us to modify the design of our clinical trials;
- clinical studies of our product candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon drug development programs;
- the number of patients required for clinical trials of our product candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate or participants may drop out of these clinical trials at a higher rate than we anticipate;
- our third-party contractors may fail to comply with regulatory requirements, fail to maintain adequate quality controls or be unable to provide us with sufficient product supply to conduct and complete preclinical studies or clinical trials of our product candidates in a timely manner, or at all;
- we or our investigators might have to suspend or terminate clinical trials of our product candidates for various reasons, including non-compliance with regulatory requirements, a finding that our product candidates have undesirable side effects or other unexpected characteristics or a finding that the participants are being exposed to unacceptable health risks;

- the cost of clinical trials of our product candidates may be greater than we anticipate;
- the quality of our product candidates or other materials necessary to conduct preclinical studies or clinical trials of our product candidates may be insufficient or inadequate;
- regulators may revise the requirements for approving our product candidates or such requirements may not be as we anticipate; and
- any future collaborators may conduct clinical trials in ways they view as advantageous to them but that are suboptimal for us.

If we are required to conduct additional clinical trials or other testing of our product candidates beyond those that we currently contemplate, if we are unable to successfully complete clinical trials of our product candidates or other testing, if the results of these trials or tests are not positive or are only moderately positive or if there are safety concerns, we may:

- incur unplanned costs;
- be delayed in obtaining marketing approval for our product candidates or not obtain marketing approval at all;
- obtain marketing approval in some countries and not in others;
- obtain marketing approval for indications or patient populations that are not as broad as intended or desired;
- obtain marketing approval with labeling that includes significant use or distribution restrictions or safety warnings, including boxed warnings;
- be subject to additional post-marketing testing requirements; or
- have the product removed from the market after obtaining marketing approval.

We could also encounter delays if a clinical trial is suspended or terminated by us, by the IRBs of the institutions in which such trials are being conducted, by the Data Safety Monitoring Board, or DSMB, for such trial or by the FDA or other regulatory authorities. Such authorities may suspend or terminate a clinical trial due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a drug, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial.

Further, conducting clinical trials in foreign countries, as we plan to do for certain of our product candidates, presents additional risks that may delay completion of our clinical trials. These risks include the failure of enrolled patients in foreign countries to adhere to clinical protocol as a result of differences in healthcare services or cultural customs and managing additional administrative burdens associated with foreign regulatory schemes, as well as political and economic risks.

Principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and may receive cash or equity compensation in connection with such services. If these relationships and any related compensation result in perceived or actual conflicts of interest, or a regulatory authority concludes that the financial relationship may have affected the interpretation of the trial, the integrity of the data generated at the applicable clinical trial site may be questioned and the utility of the clinical trial itself may be jeopardized, which could result in the delay or rejection of the marketing application we submit. Any such delay or rejection could prevent or delay us from commercializing our current or future product candidates.

If we experience delays in the completion, or termination, of any preclinical study or clinical trial of our product candidates, the commercial prospects of our product candidates may be harmed, and our ability to

generate revenues from any of these product candidates will be delayed or not realized at all. In addition, any delays in completing our clinical trials may increase our costs, slow down our product candidate development and approval process and jeopardize our ability to commence product sales and generate revenues. Any of these occurrences may materially and adversely affect our business, financial condition, results of operations and prospects. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates. If one or more of our product candidates proves to be ineffective, unsafe or commercially unviable, our business, financial condition, results of operations and prospects may be materially and adversely affected.

If we encounter difficulties enrolling patients in our clinical trials, our clinical development activities could be delayed or otherwise adversely affected.

We may not be able to initiate or continue clinical trials on a timely basis or at all for any product candidates we identify or develop if we are unable to locate and enroll a sufficient number of eligible patients to participate in the trials as required by applicable regulations or as needed to provide appropriate statistical power for a given trial. The timely completion of clinical trials in accordance with their protocols depends on, among other things, our ability to enroll a sufficient number of patients who remain in the study until its conclusion. We may experience difficulties in patient enrollment in our clinical trials for a variety of reasons. The enrollment of patients depends on many factors, including:

- the severity and difficulty of diagnosing the disease under investigation;
- the patient eligibility and exclusion criteria defined in the protocol;
- the size of the patient population required for analysis of the trial's primary endpoints;
- the proximity of patients to trial sites;
- the design of the trial;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- the existing body of safety and efficacy data with respect to the study drug and safety concerns;
- patient referral practices of physicians;
- risk that enrolled subjects will drop out before completion of the trial;
- ability to monitor patients adequately during and after treatment;
- availability and efficacy of approved medications or therapies, or other clinical trials, for the disease or condition under investigation;
- clinicians' and patients' perceptions as to the potential advantages of the product candidate being studied in relation to other available therapies, including any new drugs that may be approved for the indications we are investigating; and
- our ability to obtain and maintain patient consents.

In addition, our clinical trials may compete with other clinical trials for product candidates that are in the same therapeutic areas as our product candidates, and this competition will reduce the number and types of patients available to us, because some patients who might have opted to enroll in our trials may instead opt to enroll in a trial being conducted by one of our competitors. Because the number of qualified clinical investigators is limited, we may conduct some of our clinical trials at the same clinical trial sites that some of our competitors use, which will reduce the number of patients who are available for our clinical trials in such clinical trial site. Delays in patient enrollment may result in increased costs or may affect the timing or outcome of the planned clinical trials, which could prevent completion of these trials and adversely affect our ability to advance the development of our product candidates.

Our product candidates may cause undesirable and unforeseen side effects or have other properties that could halt their clinical development, delay or prevent their regulatory approval, limit their commercial potential or result in significant negative consequences.

Adverse events or other undesirable side effects caused by our product candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or comparable foreign regulatory authorities. If unacceptable side effects arise in the development of our product candidates, we, the FDA, the IRBs at the institutions in which our studies are conducted or the DSMB could suspend or terminate our clinical trials or the FDA or comparable foreign regulatory authorities could order us to cease clinical trials or deny approval of our product candidates for any or all targeted indications. Treatment-related side effects could also affect patient recruitment or the ability of enrolled patients to complete any of our clinical trials or result in potential product liability claims. In addition, these side effects may not be appropriately recognized or managed by the treating medical staff. We expect to have to train medical personnel using our product candidates to understand the side effect profiles for our clinical trials and upon any commercialization of any of our product candidates. Inadequate training in recognizing or managing the potential side effects of our product candidates could result in patient injury or death. Any of these occurrences may materially and adversely affect our business, financial condition, results of operations and prospects.

In addition, early clinical trials may only include a limited number of subjects and limited duration of exposure to our product candidates. In particular, we are pursuing a novel approach to inhibiting upstream molecules of the classical complement pathway, primarily C1q, and as a result, our product candidates may cause unforeseen safety events when evaluated in larger patient populations. Further, clinical trials may not be sufficient to determine the effect and safety consequences of taking our product candidates over a multi-year period.

If any of our product candidates receives marketing approval, and we or others later identify undesirable and unforeseen side effects caused by such product, a number of potentially significant negative consequences could result, including but not limited to:

- regulatory authorities may suspend, limit or withdraw approvals of such product, or seek an injunction against its manufacture or distribution;
- we may be required to conduct additional clinical trials or post-approval studies;
- we may be required to recall a product or change the way such product is administered to patients;
- additional restrictions may be imposed on the marketing of the particular product or the manufacturing processes for the product or any component thereof;
- regulatory authorities may require the addition of labeling statements, such as a “black box” warning or a contraindication, or issue safety alerts, Dear Healthcare Provider letters, press releases or other communications containing warnings or other safety information about the product;
- we may be required to implement a REMS or create a Medication Guide outlining the risks of such side effects for distribution to patients, a communication plan for healthcare providers and/or other elements to assure safe use;
- we could be sued and held liable for harm caused to patients;
- we may be subject to fines, injunctions or the imposition of criminal penalties;
- the product may become less competitive; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular product candidate, if approved, and result in the loss of significant revenues to us, which would materially and

adversely affect our results of operations and business. In addition, if one or more of our product candidates prove to be unsafe, our business, financial condition, results of operations and prospects may be materially and adversely affected.

Interim "top-line" and preliminary data from studies or trials that we announce or publish from time to time may change as more data become available and are subject to audit and verification procedures that could result in material changes in the final data.

From time to time, we may publish interim "top-line" or preliminary data from preclinical studies or clinical trials. Interim data are subject to the risk that one or more of the outcomes may materially change as more data become available. We also make assumptions, estimations, calculations and conclusions as part of our analyses of data, and we may not have received or had the opportunity to fully and carefully evaluate all data when we publish such data. As a result, the "top-line" results that we report may differ from future results of the same studies, or different conclusions or considerations may qualify such results once additional data have been received and fully evaluated. Preliminary or "top-line" data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, interim and preliminary data should be viewed with caution until the final data are available. Additionally, interim data from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available. Adverse differences between preliminary or interim data and final data could significantly harm our business prospects.

Further, others, including regulatory agencies, may not accept or agree with our assumptions, estimates, calculations, conclusions or analyses or may interpret or weigh the importance of data differently, which could impact the value of the particular program, the approvability or commercialization of the particular product candidate or product and our company in general. In addition, the information we choose to publicly disclose regarding a particular study or clinical trial is based on what is typically extensive information, and you or others may not agree with what we determine is the material or otherwise appropriate information to include in our disclosure. Any information we determine not to disclose may ultimately be deemed significant by you or others with respect to future decisions, conclusions, views, activities or otherwise regarding a particular product candidate or our business. If the top-line data that we report differ from final results, or if others, including regulatory authorities, disagree with the conclusions reached, our ability to obtain approval for, and commercialize, product candidates may be harmed, which could significantly harm our business prospects.

Clinical trials of ANX005 in combination with IVIg in patients with GBS will provide little evidence of the efficacy of ANX005.

While not approved for use in GBS in the United States, IVIg has developed as the standard of care in the Western world and parts of Asia for patients with GBS and has been shown to be a reasonably effective treatment in some GBS patients. The trials we currently intend to conduct for ANX005 are designed to generate proof-of-concept data in GBS patients utilizing a combination of ANX005 and IVIg. The purpose of our planned clinical trial evaluating ANX005 with IVIg is to assess safety and if there are any pharmacokinetic or pharmacodynamic effects on ANX005's dosing profile by administering the two drug products in combination. Any objective responses observed in this trial will be in patients receiving ANX005 together with IVIg, and attribution of objective responses to the effects of ANX005 as a monotherapy will not be possible. Moreover, the trial is not powered to show a statistically significant efficacious outcome with the combined administration of ANX005 and IVIg. As a result, this planned clinical trial evaluating ANX005 with IVIg will provide little evidence of the efficacy of ANX005, which may not be fully understood by investors or market participants, potentially leading to negative effects on our stock price.

Even if our current or future product candidates obtain regulatory approval, they may fail to achieve the broad degree of physician and patient adoption and use necessary for commercial success.

Even if one or more of our product candidates receive FDA or other regulatory approvals, the commercial success of any of our current or future product candidates will depend significantly on the broad adoption and use of the resulting product by physicians and patients for approved indications. Our product candidates may not be commercially successful. For a variety of reasons, including, among other things, competitive factors, pricing or physician preference, reimbursement by insurers, the degree and rate of physician and patient adoption of our current or future product candidates, if approved, will depend on a number of factors, including:

- the clinical indications for which the product is approved and patient demand for approved products that treat those indications;
- the safety and efficacy of our product as compared to other available therapies;
- the availability of coverage and adequate reimbursement from managed care plans, insurers and other healthcare payors for any of our product candidates that may be approved;
- acceptance by physicians, operators of clinics and patients of the product as a safe and effective treatment;
- physician and patient willingness to adopt a new therapy over other available therapies to treat approved indications;
- overcoming any biases physicians or patients may have toward particular therapies for the treatment of approved indications;
- proper training and administration of our product candidates by physicians and medical staff;
- public misperception regarding the use of our therapies, if approved for commercial sale;
- patient satisfaction with the results and administration of our product candidates and overall treatment experience, including, for example, the convenience of any dosing regimen;
- the cost of treatment with our product candidates in relation to alternative treatments and reimbursement levels, if any, and willingness to pay for the product, if approved, on the part of insurance companies and other third-party payors, physicians and patients;
- the revenue and profitability that our products may offer a physician as compared to alternative therapies;
- the prevalence and severity of side effects;
- limitations or warnings contained in the FDA-approved labeling for our products;
- the willingness of physicians, operators of clinics and patients to utilize or adopt our products as a solution;
- any FDA requirement to undertake a REMS;
- the effectiveness of our sales, marketing and distribution efforts;
- adverse publicity about our products or favorable publicity about competitive products; and
- potential product liability claims.

We cannot assure you that our current or future product candidates, if approved, will achieve broad market acceptance among physicians and patients. Any failure by our product candidates that obtain regulatory approval to achieve market acceptance or commercial success would adversely affect our results of operations.

We have received orphan drug designation for ANX005 for the treatment of GBS, and we may seek orphan drug designation for certain future product candidates. We may be unable to obtain such designations or to maintain the benefits associated with orphan drug designation, including market exclusivity, which may cause any revenue from product sales to be reduced.

We have received orphan drug designation in the United States for ANX005 for the treatment of GBS. Although we may seek orphan product designation for some or all of our other product candidates, we may never receive such designations. Under the Orphan Drug Act, the FDA may designate a drug or biologic product as an orphan drug if it is intended to treat a rare disease or condition, defined as a patient population of fewer than 200,000 in the United States, or a patient population greater than 200,000 in the United States where there is no reasonable expectation that the cost of developing the drug will be recovered from sales in the United States. Orphan drug designation must be requested before submitting a biologics license application, or BLA. In the European Union, the EMA's Committee for Orphan Medicinal Products, or COMP, grants orphan drug designation to promote the development of products that are intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition affecting not more than five in 10,000 persons in the European Union. Additionally, designation is granted for products intended for the diagnosis, prevention or treatment of a life-threatening, seriously debilitating or serious and chronic condition when, without incentives, it is unlikely that sales of the drug in the European Union would be sufficient to justify the necessary investment in developing the drug or biological product or where there is no satisfactory method of diagnosis, prevention or treatment, or, if such a method exists, the medicine must be of significant benefit to those affected by the condition.

In the United States, orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and application fee waivers. After the FDA grants orphan drug designation, the generic identity of the drug and its potential orphan use are disclosed publicly by the FDA.

In addition, if a product receives the first FDA approval for the indication for which it has orphan designation, the product is entitled to orphan drug exclusivity, which means the FDA may not approve any other application to market the same drug for the same indication for a period of seven years, except in limited circumstances, such as a showing of clinical superiority over the product with orphan exclusivity or where the manufacturer is unable to assure sufficient product quantity the orphan patient population. Exclusive marketing rights in the United States may also be unavailable if we or our collaborators seek approval for an indication broader than the orphan designated indication and may be lost if the FDA later determines that the request for designation was materially defective. In the European Union, orphan drug designation entitles a party to financial incentives such as reduction of fees or fee waivers and ten years of market exclusivity following drug or biological product approval. This period may be reduced to six years if the orphan drug designation criteria are no longer met, including where it is shown that the product is sufficiently profitable to not justify maintenance of market exclusivity.

Even if we obtain orphan drug designation, we may not be the first to obtain marketing approval for any particular orphan indication due to the uncertainties associated with developing pharmaceutical products. Further, even if we obtain orphan drug exclusivity for a product candidate, that exclusivity may not effectively protect the product from competition because different drugs with different active moieties can be approved for the same condition. Even after an orphan drug is approved, the FDA can subsequently approve the same drug with the same active moiety for the same condition if the FDA concludes that the later drug is clinically superior in that it is safer, more effective or makes a major contribution to patient care. Orphan drug designation neither shortens the development time or regulatory review time of a drug or biologic nor gives the drug or biologic any advantage in the regulatory review or approval process.

A Breakthrough Therapy Designation by the FDA, even if granted for any of our product candidates, may not lead to a faster development or regulatory review or approval process, and it does not increase the likelihood that our product candidates will receive marketing approval.

We may seek a Breakthrough Therapy Designation for our product candidates if the clinical data support such a designation for one or more product candidates. A breakthrough therapy is defined as a drug or biologic that is intended, alone or in combination with one or more other drugs or biologics, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the drug, or biologic in our case, may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For product candidates that have been designated as breakthrough therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Biologics designated as breakthrough therapies by the FDA may also be eligible for priority review.

Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe one of our product candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. In any event, the receipt of a Breakthrough Therapy Designation for a product candidate may not result in a faster development process, review or approval compared to drugs considered for approval under non-expedited FDA review procedures and does not assure ultimate approval by the FDA. In addition, even if one or more of our product candidates qualify as breakthrough therapies, the FDA may later decide that the product no longer meets the conditions for qualification or decide that the time period for FDA review or approval will not be shortened.

A Fast Track Designation by the FDA, even if granted for any of our product candidates, may not lead to a faster development or regulatory review or approval process, and does not increase the likelihood that our product candidates will receive marketing approval.

The FDA has granted fast track designation for ANX005 in GBS, and, in the future, we may seek fast track designation for other of our product candidates. If a drug or biologic, in our case, is intended for the treatment of a serious or life-threatening condition and the biologic demonstrates the potential to address unmet medical needs for this condition, the biologic sponsor may apply for Fast Track Designation. The FDA has broad discretion whether or not to grant this designation. Even if we believe a particular product candidate is eligible for this designation, we cannot assure you that the FDA would decide to grant it. Fast Track Designation may not result in a faster development process, review or approval compared to conventional FDA procedures. The FDA may withdraw Fast Track Designation if it believes that the designation is no longer supported by data from our clinical development program. Many biologics that have received Fast Track Designation have failed to obtain approval.

Even if we obtain regulatory approval for a product candidate, our products will remain subject to regulatory scrutiny.

If one of our product candidates is approved, it will be subject to ongoing regulatory requirements for manufacturing, labeling, packaging, storage, advertising, promotion, sampling, record-keeping, conduct of post-marketing studies and submission of safety, efficacy and other post-market information, including both federal and state requirements in the United States and requirements of comparable foreign regulatory authorities.

Manufacturers and manufacturers' facilities are required to comply with extensive FDA and comparable foreign regulatory authority requirements, including ensuring that quality control and manufacturing procedures conform to cGMP regulations. We and our contract manufacturers will be subject to continual review and inspections to assess compliance with cGMPs and adherence to commitments made in any approved marketing application. Accordingly, we and others with whom we work must continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production and quality control.

We will have to comply with requirements concerning advertising and promotion for our products. Promotional communications with respect to prescription drugs and biologics are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product's approved label. We may not promote our products "off-label" for indications or uses for which they do not have approval. The holder of an approved application must submit new or supplemental applications and obtain approval for certain changes to the approved product, product labeling or manufacturing process. We could also be asked to conduct post-marketing clinical studies to verify the safety and efficacy of our products in general or in specific patient subsets. An unsuccessful post-marketing study or failure to complete such a study could result in the withdrawal of marketing approval.

If a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, or disagrees with the promotion, marketing or labeling of a product, the regulatory agency may impose restrictions on that product or us, including requiring withdrawal of the product from the market. If we fail to comply with applicable regulatory requirements, a regulatory agency or enforcement authority may, among other things:

- issue warning letters;
- impose civil or criminal penalties;
- suspend or withdraw regulatory approval;
- suspend any of our clinical studies;
- refuse to approve pending applications or supplements to approved applications submitted by us;
- impose restrictions on our operations, including closing our contract manufacturers' facilities; or
- seize or detain products, or require a product recall.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response, and could generate negative publicity. Any failure to comply with ongoing regulatory requirements may significantly and adversely affect our ability to commercialize and generate revenue from our products. If regulatory sanctions are applied or if regulatory approval is withdrawn, the value of our company and our operating results will be adversely affected.

Moreover, the policies of the FDA and of other regulatory authorities may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative or executive action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are unable to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability.

Changes in funding for the FDA and other government agencies could hinder their ability to hire and retain key leadership and other personnel, or otherwise prevent new products and services from being developed or commercialized in a timely manner, which could negatively impact our business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory and policy changes. Average review times at the FDA have fluctuated in recent years as a result. In addition, government funding of other government agencies that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA and other agencies may also slow the time necessary for new drugs to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example,

over the last several years, including for 35 days beginning on December 22, 2018, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA, have had to furlough certain FDA employees and stop critical activities. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business.

We have conducted, and in the future plan to conduct, clinical trials for product candidates outside the United States, and the FDA and comparable foreign regulatory authorities may not accept data from such trials.

We have conducted clinical trials of our product candidates outside the United States, and plan to continue to do so in the future. For example, we conducted our Phase 1b clinical trial of ANX005 in Bangladesh. The acceptance of study data from clinical trials conducted outside the United States or another jurisdiction by the FDA, any comparable foreign regulatory authority may be subject to certain conditions or may not be accepted at all. In cases where data from foreign clinical trials are intended to serve as the basis for marketing approval in the United States, the FDA will generally not approve the application on the basis of foreign data alone unless (i) the data are applicable to the U.S. population and U.S. medical practice; (ii) the trials were performed by clinical investigators of recognized competence and pursuant to GCP regulations; and (iii) if necessary, the FDA is able to validate the data through an on-site inspection or other appropriate means. Additionally, the FDA's clinical trial requirements, including sufficient size of patient populations and statistical powering, must be met. Many foreign regulatory authorities have similar approval requirements. In addition, foreign trials are subject to the applicable local laws of the foreign jurisdictions where the trials are conducted. There can be no assurance that the FDA or any comparable foreign regulatory authority will accept data from trials conducted outside of the United States or the applicable jurisdiction. If the FDA or any comparable foreign regulatory authority does not accept such data, it would result in the need for additional trials, which would be costly and time-consuming and delay aspects of our business plan, and which may result in product candidates that we may develop not receiving approval or clearance for commercialization in the applicable jurisdiction.

If the product candidates that we develop receive regulatory approval in the United States or another jurisdiction, they may never receive approval in other jurisdictions, which would limit market opportunities for our product candidates and adversely affect our business.

Approval of a product candidate in the United States by the FDA or by the requisite regulatory agencies in any other jurisdiction does not ensure approval of such product candidate by regulatory authorities in other countries or jurisdictions. The approval process varies among countries and may limit our or any future collaborators' ability to develop, manufacture, promote and sell product candidates internationally. Failure to obtain marketing approval in international jurisdictions would prevent the product candidates from being marketed outside of the jurisdictions in which regulatory approvals have been received. In order to market and sell product candidates in the European Union, or EU, and many other jurisdictions, we and any future collaborators must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and may involve additional preclinical studies or clinical trials both before and after approval. In many countries, any product candidate for human use must be approved for reimbursement before it can be approved for sale in that country. In some cases, the intended price for such product is also subject to approval. Further, while regulatory approval of a product candidate in one country does not ensure approval in any other country, a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory approval process in others. If we or any future collaborators fail to comply with the regulatory requirements in international markets or to obtain all required marketing approvals, the target market for a particular potential product will be reduced, which would limit our ability to realize the full market potential for the product and adversely affect our business.

Any product candidates for which we intend to seek approval as biologic products may face competition sooner than anticipated.

The Patient Protection and Affordable Care Act, signed into law on March 23, 2010, includes a subtitle called the Biologics Price Competition and Innovation Act of 2009, or BPCIA, which created an abbreviated approval pathway for biological products that are biosimilar to or interchangeable with an FDA-licensed reference biological product. Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until four years following the date that the reference product was first licensed by the FDA. In addition, the approval of a biosimilar product may not be made effective by the FDA until 12 years from the date on which the reference product was first licensed. During this 12-year period of exclusivity, another company may still market a competing version of the reference product if the FDA approves a full Biologics License Application, or BLA, for the competing product containing the sponsor's own pre-clinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of their product. The law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact, implementation, and meaning are subject to uncertainty. While it is uncertain when such processes intended to implement BPCIA may be fully adopted by the FDA, any such processes could have a material adverse effect on the future commercial prospects for our biological products.

There is a risk that any of our product candidates approved as a biological product under a BLA would not qualify for the 12-year period of exclusivity or that this exclusivity could be shortened due to congressional action or otherwise, or that the FDA will not consider our product candidates to be reference products for competing products, potentially creating the opportunity for generic competition sooner than anticipated. Other aspects of the BPCIA, some of which may impact the BPCIA exclusivity provisions, have also been the subject of litigation. Moreover, the extent to which a biosimilar, once approved, will be substituted for any one of our reference products in a way that is similar to traditional generic substitution for non-biological products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing.

We rely on third-party suppliers to manufacture our product candidates, and we intend to rely on third parties to produce commercial supplies of any approved product. The loss of these suppliers, or their failure to comply with applicable regulatory requirements or to provide us with sufficient quantities at acceptable quality levels or prices, or at all, would materially and adversely affect our business.

We do not have nor do we plan to build or acquire the infrastructure or capability internally to manufacture supplies of our product candidates or the materials necessary to produce our product candidates for use in the conduct of our preclinical studies or clinical trials, and we lack the internal resources and the capability to manufacture any of our product candidates on a preclinical, clinical or commercial scale. The facilities used by our contract manufacturers to manufacture our product candidates are subject to various regulatory requirements and may be subject to the inspection of the FDA or other regulatory authorities. We do not control the manufacturing processes of, and are completely dependent on, our contract manufacturing partners for compliance with the regulatory requirements, known as cGMPs. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or comparable regulatory authorities in foreign jurisdictions, we may not be able to rely on their manufacturing facilities for the manufacture of our product candidates. In addition, we have limited control over the ability of our contract manufacturers to maintain adequate quality control, quality assurance and qualified personnel. If the FDA or a comparable foreign regulatory authority finds these facilities inadequate for the manufacture of our product candidates or if such facilities are subject to enforcement action in the future or are otherwise inadequate, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for or market our product candidates.

We currently intend to supply our product candidates in all territories for our clinical development programs. We currently rely on third parties at key stages in our supply chain. For instance, the supply chains for our two clinical-stage product candidates involve several manufacturers that specialize in specific operations of

the manufacturing process, specifically, raw materials manufacturing, drug substance manufacturing and drug product manufacturing. As a result, the supply chain for the manufacturing of our product candidates is complicated, and we expect the logistical challenges associated with our supply chain to grow more complex as our product candidates are further developed.

We do not have any control over the process or timing of the acquisition or manufacture of materials by our manufacturers. We generally do not begin preclinical or clinical trials unless we believe we have access to a sufficient supply of a product candidate to complete such study. In addition, any significant delay in, or quality control problems with respect to, the supply of a product candidate, or the raw material components thereof, for an ongoing study could considerably delay completion of our preclinical or clinical trials, product testing and potential regulatory approval of our product candidates.

We have not yet engaged any manufacturers for the commercial supply of our product candidates. Although we intend to enter into such agreements prior to commercial launch of any of our product candidates, we may be unable to enter into any such agreement or do so on commercially reasonable terms, which could have a material adverse impact upon our business. Moreover, if there is a disruption to one or more of our third-party manufacturers' or suppliers' relevant operations, or if we are unable to enter into arrangements for the commercial supply of our product candidates, we will have no other means of producing our product candidates until they restore the affected facilities or we or they procure alternative manufacturing facilities or sources of supply. Our ability to progress our preclinical and clinical programs could be materially and adversely impacted if any of the third-party suppliers upon which we rely were to experience a significant business challenge, disruption or failure due to issues such as financial difficulties or bankruptcy, issues relating to other customers such as regulatory or quality compliance issues, or other financial, legal, regulatory or reputational issues. Additionally, any damage to or destruction of our third-party manufacturers' or suppliers' facilities or equipment may significantly impair our ability to manufacture our product candidates on a timely basis.

In addition, to manufacture our product candidates in the quantities which we believe would be required to meet anticipated market demand, our third-party manufacturers would likely need to increase manufacturing capacity and we may need to secure alternative sources of commercial supply, which could involve significant challenges and may require additional regulatory approvals. In addition, the development of commercial-scale manufacturing capabilities may require us and our third-party manufacturers to invest substantial additional funds and hire and retain the technical personnel who have the necessary manufacturing experience. Neither we nor our third-party manufacturers may successfully complete any required increase to existing manufacturing capacity in a timely manner, or at all. If our manufacturers or we are unable to purchase the raw materials necessary for the manufacture of our product candidates on acceptable terms, at sufficient quality levels or in adequate quantities, if at all, the commercial launch of our product candidates would be delayed or there would be a shortage in supply, which would impair our ability to generate revenues from the sale of such product candidates, if approved.

We rely on third parties in the conduct of all of our preclinical studies and clinical trials. If these third parties do not successfully carry out their contractual duties, fail to comply with applicable regulatory requirements or meet expected deadlines, we may be unable to obtain regulatory approval for our product candidates.

We currently do not have the ability to independently conduct preclinical studies or clinical trials that comply with the regulatory requirements known as good laboratory practice, or GLP, requirements or good clinical practice, or GCP, requirements, respectively. The FDA and regulatory authorities in other jurisdictions require us to comply with GCP requirements for conducting, monitoring, recording and reporting the results of clinical trials, in order to ensure that the data and results are scientifically credible and accurate and that the trial subjects are adequately informed of the potential risks of participating in clinical trials. We rely on medical institutions, clinical investigators, contract laboratories and other third parties, such as CROs, to conduct GLP-compliant preclinical studies and GCP-compliant clinical trials on our product candidates properly and on time. While we have agreements governing their activities, we control only certain aspects of their activities and

have limited influence over their actual performance. The third parties with whom we contract for execution of our GLP-compliant preclinical studies and our GCP-compliant clinical trials play a significant role in the conduct of these studies and the subsequent collection and analysis of data. These third parties are not our employees and, except for restrictions imposed by our contracts with such third parties, we have limited ability to control the amount or timing of resources that they devote to our programs. Although we rely on these third parties to conduct our GLP-compliant preclinical studies and GCP-compliant clinical trials, we remain responsible for ensuring that each of our preclinical studies and clinical trials is conducted in accordance with its investigational plan and protocol and applicable laws and regulations, and our reliance on the CROs does not relieve us of our regulatory responsibilities.

Many of the third parties with whom we contract may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical trials or other drug development activities that could harm our competitive position. If the third parties conducting our preclinical studies or our clinical trials do not adequately perform their contractual duties or obligations, experience significant business challenges, disruptions or failures, do not meet expected deadlines, terminate their agreements with us or need to be replaced, or if the quality or accuracy of the data they obtain is compromised due to their failure to adhere to our protocols or to GLPs or GCPs, or for any other reason, we may need to enter into new arrangements with alternative third parties. This could be difficult, costly or impossible, and our preclinical studies or clinical trials may need to be extended, delayed, terminated or repeated. As a result we may not be able to obtain regulatory approval in a timely fashion, or at all, for the applicable product candidate, our business, financial results and the commercial prospects for our product candidates would be harmed, our costs could increase, and our ability to generate revenues could be delayed.

If we are not successful in identifying, developing and commercializing additional product candidates, our ability to expand our business and achieve our strategic objectives would be impaired.

Although a substantial amount of our effort will focus on the continued development and potential approval of our current product candidates, a key element of our strategy is to identify, develop and commercialize a portfolio of products that address classical complement-mediated autoimmune and neurodegenerative diseases. A component of our strategy is to evaluate our product candidates in multiple indications based, in part, on our evaluation of certain biomarkers in a disease area. For example, we intend to evaluate ANX005 in neurodegenerative diseases, including amyotrophic lateral sclerosis, or ALS, and Huntington's Disease, or HD; however, we have not yet evaluated ANX005 in these patient populations and we may find that while we have seen promising results in one neurodegenerative disease, that effect is not replicated across other neurodegenerative or autoimmune diseases. Even if we successfully identify product candidates, we may still fail to yield product candidates for development and commercialization for many reasons, including the following:

- competitors may develop alternatives that render our product candidates obsolete;
- product candidates we develop may be covered by third parties' patents or other exclusive rights;
- a product candidate may be shown to have harmful side effects or other characteristics that indicate it is unlikely to be effective or otherwise does not meet applicable regulatory criteria;
- a product candidate may not be capable of being produced in commercial quantities at an acceptable cost, or at all; and
- a product candidate may not be accepted as safe and effective by physicians and patients.

We therefore cannot provide any assurance that we will be able to successfully identify or acquire additional product candidates, advance any of these additional product candidates through the development process, successfully commercialize any such additional product candidates, if approved, or assemble sufficient resources to identify, acquire, develop or, if approved, commercialize additional product candidates. If we are unable to successfully identify, acquire, develop and commercialize additional product candidates, our commercial opportunities may be limited.

We face significant competition in an environment of rapid technological and scientific change, and our product candidates, if approved, will face significant competition, which may prevent us from achieving significant market penetration. Most of our competitors have significantly greater resources than we do, and we may not be able to successfully compete.

The pharmaceutical, biopharmaceutical and biotechnology industries in particular are characterized by rapidly advancing technologies, intense competition and a strong emphasis on developing proprietary therapeutics. Numerous companies are engaged in the development, patenting, manufacturing and marketing of healthcare products competitive with those that we are developing. We face competition from a number of sources, such as pharmaceutical, biopharmaceutical and biotechnology companies, generic drug companies and academic and research institutions, many of which have greater financial resources, marketing capabilities, sales forces, manufacturing capabilities, research and development capabilities, clinical trial expertise, intellectual property portfolios, experience in obtaining patents and regulatory approvals for product candidates and other resources than we do. Some of the companies also have a broad range of other product offerings, large direct sales forces and long-term customer relationships with our target physicians, which could inhibit our market penetration efforts. Mergers and acquisitions in the pharmaceutical, biopharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

Certain alternative treatments offered by competitors may be available at lower prices and may offer greater efficacy or better safety profiles. Furthermore, currently approved products could be discovered to have application for the intended indication of our product candidates, which could give such products significant regulatory and market timing advantages over any of our product candidates. Our competitors also may obtain FDA, European Medicines Agency, or EMA, or other regulatory approval for their products more rapidly than we may obtain approval for ours and may obtain orphan product exclusivity from the FDA for indications our product candidates are targeting, which could result in our competitors establishing a strong market position before we are able to enter the market. For additional information regarding our competition, see the section of this prospectus captioned “Business—Competition.”

The successful commercialization of our product candidates will depend in part on the extent to which governmental authorities and health insurers establish adequate coverage, reimbursement levels and pricing policies. Failure to obtain or maintain coverage and adequate reimbursement for our product candidates, if approved, could limit our ability to market those products and decrease our ability to generate revenue.

The availability and adequacy of coverage and reimbursement by governmental healthcare programs such as Medicare and Medicaid, private health insurers and other third-party payors are essential for most patients to be able to afford prescription medications such as our product candidates, if approved. Our ability to achieve acceptable levels of coverage and reimbursement for products by governmental authorities, private health insurers and other organizations will have an effect on our ability to successfully commercialize our product candidates. Obtaining coverage and adequate reimbursement for our products may be particularly difficult because of the higher prices often associated with drugs administered under the supervision of a physician. Even if we obtain coverage for our product candidates by a third-party payor, the resulting reimbursement payment rates may not be adequate or may require co-payments that patients find unacceptably high. We cannot be sure that coverage and reimbursement in the United States, the European Union or elsewhere will be available for our product candidates or any product that we may develop, and any reimbursement that may become available may be decreased or eliminated in the future.

Third-party payors increasingly are challenging prices charged for pharmaceutical, biopharmaceutical and biotechnology products and services, and many third-party payors may refuse to provide coverage and

reimbursement for particular drugs or biologics when an equivalent generic drug, biosimilar or a less expensive therapy is available. It is possible that a third-party payor may consider our product candidates as substitutable and only offer to reimburse patients for the cost of the less expensive product. Even if we show improved efficacy or improved convenience of administration with our product candidates, pricing of existing third-party therapeutics may limit the amounts we will be able to charge for our product candidates. These payors may deny or revoke the reimbursement status of a given product or establish prices for new or existing marketed products at levels that are too low to enable us to realize an appropriate return on our investment in our product candidates. If reimbursement is not available or is available only at limited levels, we may not be able to successfully commercialize our product candidates and may not be able to obtain a satisfactory financial return on our investment in the development of product candidates.

There is significant uncertainty related to the insurance coverage and reimbursement of newly-approved products. In the United States, third-party payors, including private and governmental payors, such as the Medicare and Medicaid programs, play an important role in determining the extent to which new drugs and biologics will be covered. The Medicare and Medicaid programs increasingly are used as models in the United States for how private payors and other governmental payors develop their coverage and reimbursement policies for drugs and biologics. Some third-party payors may require pre-approval of coverage for new or innovative devices or drug therapies before they will reimburse healthcare providers who use such therapies. We cannot predict at this time what third-party payors will decide with respect to the coverage and reimbursement for our product candidates.

No uniform policy for coverage and reimbursement for products exists among third-party payors in the United States. Therefore, coverage and reimbursement for products can differ significantly from payor to payor. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our product candidates to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. Furthermore, rules and regulations regarding reimbursement change frequently, in some cases on short notice, and we believe that changes in these rules and regulations are likely.

Outside the United States, international operations are generally subject to extensive governmental price controls and other market regulations, and we believe the increasing emphasis on cost-containment initiatives in Europe and other foreign jurisdictions have and will continue to put pressure on the pricing and usage of our product candidates. In many countries, the prices of medical products are subject to varying price control mechanisms as part of national health systems. Other countries allow companies to fix their own prices for medical products, but monitor and control company profits. Additional foreign price controls or other changes in pricing regulation could restrict the amounts that we are able to charge for our product candidates. Accordingly, in markets outside the United States, the reimbursement for our product candidates may be reduced compared with the United States and may be insufficient to generate commercially-reasonable revenue and profits.

Moreover, increasing efforts by governmental and third-party payors in the United States and abroad to cap or reduce healthcare costs may cause such organizations to limit both coverage and the level of reimbursement for newly approved products, and, as a result, they may not cover or provide adequate payment for our product candidates. We expect to experience pricing pressures in connection with the sale of our product candidates due to the trend toward managed health care, the increasing influence of health maintenance organizations and additional legislative changes. The downward pressure on healthcare costs in general, particularly prescription drugs and biologics and surgical procedures and other treatments, has become intense. As a result, increasingly high barriers are being erected to the entry of new products.

We have identified a material weakness in our internal control over financial reporting and may identify additional material weaknesses in the future or otherwise fail to maintain an effective system of internal controls, which may result in material misstatements of our financial statements or cause us to fail to meet our periodic reporting obligations.

Prior to this offering, we were a private company and had limited accounting and financial reporting personnel and other resources with which to address our internal controls and procedures. In connection with the audit of our consolidated financial statements for the year ended December 31, 2018, we and our independent registered public accounting firm identified a material weakness in our internal control over financial reporting. The material weakness that was identified related to an inadequate number of qualified personnel within our accounting function, which impacted our ability to perform effective reviews over non-routine transactions. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected and corrected on a timely basis.

We are implementing measures designed to improve our internal control over financial reporting to address the underlying causes of this material weakness, including the hiring of accounting personnel and establishing new accounting and financial reporting procedures, policies and processes to have in place an appropriate level of internal control over financial reporting. While we intend to implement these measures to remediate this material weakness, we cannot predict the success of such measures or the outcome of our assessment of these measures at this time. If our steps are insufficient to successfully remediate the material weakness and otherwise establish and maintain an effective system of internal control over financial reporting, the reliability of our financial reporting, investor confidence in us and the value of our common stock could be materially and adversely affected. We can give no assurance that this implementation will remediate this deficiency in internal control or that additional material weaknesses in our internal control over financial reporting will not be identified in the future. Our failure to implement and maintain effective internal control over financial reporting could result in errors in our financial statements that could result in a restatement of our financial statements and cause us to fail to meet our reporting obligations.

Effective internal control over financial reporting is necessary for us to provide reliable and timely financial reports and, together with adequate disclosure controls and procedures, are designed to reasonably detect and prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation, could cause us to fail to meet our reporting obligations. For as long as we are an “emerging growth company” under the JOBS Act, our independent registered public accounting firm will not be required to attest to the effectiveness of our internal control over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, or Section 404. We could be an “emerging growth company” for up to five years. An independent assessment of the effectiveness of our internal control over financial reporting could detect problems that our management’s assessment might not. Undetected material weaknesses in our internal control over financial reporting could lead to financial statement restatements and require us to incur the expense of remediation.

We currently have no sales organization. If we are unable to establish sales capabilities on our own or through third parties, we may not be able to market and sell our product candidates, if approved, effectively in the United States and foreign jurisdictions or generate product revenue.

We currently do not have a marketing or sales organization. In order to commercialize our product candidates in the United States and foreign jurisdictions, we must build our marketing, sales, distribution, managerial and other non-technical capabilities or make arrangements with third parties to perform these services, and we may not be successful in doing so. If any of our product candidates receive regulatory approval, we expect to establish a sales organization with technical expertise and supporting distribution capabilities to commercialize each such product candidate, which will be expensive and time consuming. We have no prior experience in the marketing, sale and distribution of pharmaceutical, biopharmaceutical and biotechnology

products, and there are significant risks involved in building and managing a sales organization, including our ability to hire, retain and incentivize qualified individuals, generate sufficient sales leads, provide adequate training to sales and marketing personnel and effectively manage a geographically dispersed sales and marketing team. Any failure or delay in the development of our internal sales, marketing and distribution capabilities would adversely impact the commercialization of these products. We may choose to collaborate with third parties that have direct sales forces and established distribution systems, either to augment our own sales force and distribution systems or in lieu of our own sales force and distribution systems. If we are unable to enter into such arrangements on acceptable terms or at all, we may not be able to successfully commercialize our product candidates. If we are not successful in commercializing our product candidates or any future product candidates, either on our own or through arrangements with one or more third parties, we may not be able to generate any future product revenue and we would incur significant additional losses.

We will need to increase the size of our organization, and we may experience difficulties in managing growth.

As of June 30, 2019, we had 18 full-time employees. We will need to continue to expand our managerial, operational, finance and other resources in order to manage our operations and clinical trials, continue our development activities and commercialize our two clinical-stage product candidates or any future product candidates. Our management and personnel, systems and facilities currently in place may not be adequate to support this future growth. Our need to effectively execute our growth strategy requires that we:

- manage our clinical trials effectively;
- identify, recruit, retain, incentivize and integrate additional employees, including sales personnel;
- manage our internal development and operational efforts effectively while carrying out our contractual obligations to third parties; and
- continue to improve our operational, financial and management controls, reports systems and procedures.

If we fail to attract and retain senior management and key scientific personnel, our business may be materially and adversely affected.

Our success depends in part on our continued ability to attract, retain and motivate highly qualified management and clinical and scientific personnel. We are highly dependent upon members of our senior management, particularly our President and Chief Executive Officer, Douglas Love, Esq., Executive Vice President and Chief Medical Officer, Sanjay Keswani, MBBS, BSc, FRCP, and Executive Vice President and Chief Scientific Officer, Ted Yednock, Ph.D., as well as our senior scientists and other members of our senior management team. The loss of services of any of these individuals could delay or prevent the successful development of our product pipeline, initiation or completion of our planned clinical trials or the commercialization of our product candidates or any future product candidates.

Competition for qualified personnel in the pharmaceutical, biopharmaceutical and biotechnology field is intense due to the limited number of individuals who possess the skills and experience required by our industry. We will need to hire additional personnel as we expand our clinical development and if we initiate commercial activities. We may not be able to attract and retain quality personnel on acceptable terms, or at all. In addition, to the extent we hire personnel from competitors, we may be subject to allegations that they have been improperly solicited or that they have divulged proprietary or other confidential information, or that their former employers own their research output.

If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit commercialization of our current or future product candidates.

We face an inherent risk of product liability as a result of the clinical testing of our product candidates and will face an even greater risk if we commercialize any products. For example, we may be sued if any product we

develop allegedly causes injury or is found to be otherwise unsuitable during product testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability and breach of warranty. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our product candidates. Even a successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for our current or future product candidates;
- injury to our reputation;
- withdrawal of clinical trial participants;
- costs to defend the related litigation;
- diversion of management's time and our resources;
- substantial monetary awards to trial participants or patients;
- regulatory investigations, product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenue; and
- the inability to commercialize our current or any future product candidates.

If we are unable to obtain and maintain sufficient product liability insurance at an acceptable cost and scope of coverage to protect against potential product liability claims, the commercialization of our current or any future product candidates we develop could be inhibited or prevented. We currently carry product liability insurance covering our clinical trials. Although we maintain such insurance, any claim that may be brought against us could result in a court judgment or settlement in an amount that is not covered, in whole or in part, by our insurance or that is in excess of the limits of our insurance coverage. Our insurance policies also have various exclusions and deductibles, and we may be subject to a product liability claim for which we have no coverage. We will have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient funds to pay such amounts. Moreover, 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. If and when we obtain approval for marketing any of our product candidates, we intend to expand our insurance coverage to include the sale of such product candidate; however, we may be unable to obtain this liability insurance on commercially reasonable terms or at all.

Any collaboration arrangements that we may enter into in the future may not be successful, which could adversely affect our ability to develop and commercialize our product candidates.

While we have not entered into any collaboration agreements to date, we may seek collaboration arrangements for the commercialization, or potentially for the development, of certain of our product candidates depending on the merits of retaining commercialization rights for ourselves as compared to entering into collaboration arrangements. For example, certain of the disease areas that we believe our product candidates address, including, among others, ophthalmic indications, require large, costly and later-stage clinical trials, which a collaboration partner may be better positioned to finance and/or conduct. In addition, a component of our strategy is to maximize the commercial value of our current and future product candidates, which may also strategically align with partnering commercial rights with partners that have larger and established sales organizations. To the extent that we decide to enter into collaboration agreements, we may face significant competition for appropriate collaborators. Moreover, collaboration arrangements are complex and time-consuming to negotiate, document, implement and maintain and challenging to manage. We may not be successful in our efforts to enter into collaboration agreements. The terms of collaborations or other arrangements that we may establish may not be favorable to us.

The success of our collaboration arrangements will depend heavily on the efforts and activities of our collaborators. Collaborations are subject to numerous risks, which may include risks that:

- collaborators have significant discretion in determining the efforts and resources that they will apply to collaborations;
- collaborators may not pursue development and commercialization of our product candidates or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in their strategic focus due to their acquisition of competitive products or their internal development of competitive products, availability of funding or other external factors, such as a business combination that diverts resources or creates competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial, abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products or product candidates;
- collaborators with marketing, manufacturing and distribution rights to one or more products may not commit sufficient resources to or otherwise not perform satisfactorily in carrying out these activities;
- we could grant exclusive rights to our collaborators that would prevent us from collaborating with others;
- collaborators may not properly maintain or defend our intellectual property rights or may use our intellectual property or proprietary information in a way that gives rise to actual or threatened litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential liability;
- disputes may arise between us and collaborators that cause the delay or termination of the research, development or commercialization of our current or future product candidates or that result in costly litigation or arbitration that diverts management attention and resources;
- collaborations may be terminated, and, if terminated, this may result in a need for additional capital to pursue further development or commercialization of the applicable current or future product candidates;
- collaborators may own or co-own intellectual property covering products that result from our collaborating with them, and in such cases, we would not have the exclusive right to develop or commercialize such intellectual property;
- disputes may arise with respect to the ownership of any intellectual property developed pursuant to our collaborations; and
- collaborators' sales and marketing activities or other operations may not be in compliance with applicable laws resulting in civil or criminal proceedings.

Unfavorable global economic or political conditions could adversely affect our business, financial condition or results of operations.

Our business is susceptible to general conditions in the global economy and in the global financial markets. A global financial crisis or a global or regional political disruption could cause extreme volatility in the capital and credit markets. A severe or prolonged economic downturn or political disruption could result in a variety of risks to our business, including weakened demand for our product candidates or any future product candidates, if approved, and our ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy or political disruption could also strain our manufacturers or suppliers, possibly resulting in supply disruption, or cause our customers to delay making payments for our potential products. Any of the

foregoing could materially and adversely affect our business, financial condition, results of operations and prospects, and we cannot anticipate all of the ways in which the political or economic climate and financial market conditions could adversely impact our business.

We or the third parties upon whom we depend may be adversely affected by earthquakes or other natural disasters, and our business continuity and disaster recovery plans may not adequately protect us from a serious disaster.

Our corporate headquarters and other facilities are located in the San Francisco Bay Area, which has experienced both severe earthquakes and the effects of wildfires. We do not carry earthquake insurance. Earthquakes, wildfires or other natural disasters could severely disrupt our operations, and could materially and adversely affect our business, financial condition, results of operations and prospects.

If a natural disaster, power outage or other event occurred that prevented us from using all or a significant portion of our headquarters, that damaged critical infrastructure or that otherwise disrupted operations, it may be difficult or, in certain cases, impossible, for us to continue our business for a substantial period of time. The disaster recovery and business continuity plans we have in place currently are limited and are unlikely to prove adequate in the event of a serious disaster or similar event. We may incur substantial expenses as a result of the limited nature of our disaster recovery and business continuity plans, which, particularly when taken together with our lack of earthquake insurance, could have a material adverse effect on our business.

Furthermore, integral parties in our supply chain are similarly vulnerable to natural disasters or other sudden, unforeseen and severe adverse events. If such an event were to affect our supply chain, it could have a material adverse effect on our business.

Significant disruptions of information technology systems, breaches of data security and other incidents could materially adversely affect our business, results of operations and financial condition.

We collect and maintain information in digital and other forms that is necessary to conduct our business, and we are increasingly dependent on information technology systems and infrastructure to operate our business. In the ordinary course of our business, we collect, store and transmit large amounts of confidential information, including intellectual property, proprietary business information and personal information. It is critical that we do so in a secure manner to maintain the privacy, security, confidentiality and integrity of such confidential information. We have established physical, electronic and organizational measures to safeguard and secure our systems to prevent a data compromise, and rely on commercially available systems, software, tools and monitoring to provide security for our information technology systems and the processing, transmission and storage of digital information. We have also outsourced elements of our information technology infrastructure, and as a result a number of third-party vendors may or could have access to our confidential information. Our internal information technology systems and infrastructure, and those of any future collaborators and our contractors, consultants, vendors and other third parties on which we rely, are vulnerable to damage or unauthorized access or use resulting from computer viruses, malware, natural disasters, terrorism, war, telecommunication and electrical failures, cyber-attacks or cyber-intrusions over the Internet, denial or degradation of service attacks, ransomware, hacking, phishing and other social engineering attacks, attachments to emails, persons inside our organization or persons with access to systems inside our organization.

The risk of a security breach or disruption, particularly through cyber-attacks or cyber intrusion, including by computer hackers, foreign governments and cyber terrorists, has generally increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased. In addition, the prevalent use of mobile devices that access confidential information increases the risk of lost or stolen devices, security incidents and data security breaches, which could lead to the loss of confidential information or other intellectual property. The costs to us to investigate, mitigate and remediate security incidents, breaches, disruptions, network security problems, bugs, viruses, worms, malicious software programs and security

vulnerabilities could be significant, and while we have implemented security measures to protect our data security and information technology systems, our efforts to address these problems may not be successful, and these problems could result in unexpected interruptions, delays, cessation of service, negative publicity and other harm to our business and our competitive position. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our product development programs. For example, the loss of clinical trial data from completed or ongoing or planned clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. Any security compromise affecting us, our partners or our industry, whether real or perceived, could harm our reputation, erode confidence in the effectiveness of our security measures and lead to regulatory scrutiny. Moreover, if a computer security breach affects our systems or results in the unauthorized access to or unauthorized use, disclosure, release or other processing of personally identifiable information or clinical trial data, it may be necessary to notify individuals, governmental authorities, supervisory bodies, the media and other parties pursuant to privacy and security laws, and our reputation could be materially damaged. We would also be exposed to a risk of loss, governmental investigations or enforcement, or litigation and potential liability, which could materially adversely affect our business, results of operations and financial condition.

Failure to comply with health and data protection laws and regulations could lead to government enforcement actions and civil or criminal penalties, private litigation or adverse publicity and could negatively affect our operating results and business.

We and any future collaborators are subject to or affected by federal, state and foreign data protection laws and regulations which address privacy and data security. In the United States, numerous federal and state laws and regulations, including the U.S. federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 and its implementing regulations, or HITECH, state data breach notification laws, state health information privacy laws and federal and state consumer protection laws, including Section 5 of the Federal Trade Commission Act, which govern the collection, use, disclosure and protection of health-related and other personal information, may apply to our operations and the operations of any future collaborators. In addition, we may obtain health information from third parties, including research institutions from which we obtain clinical trial data, that are subject to privacy and security requirements under HIPAA, as amended by HITECH, and other privacy and data security laws. Depending on the facts and circumstances, we could be subject to significant administrative, civil and criminal penalties if we obtain, use or disclose individually identifiable health information maintained by a HIPAA-covered entity in a manner that is not authorized or permitted by HIPAA.

Foreign data protection laws, including Regulation 2016/679, known as the General Data Protection Regulation, or GDPR, may also apply to health-related and other personal information data subjects in the EU or the United Kingdom, or UK. The GDPR went into effect on May 25, 2018. Companies that must comply with the GDPR face increased compliance obligations and risk, including robust regulatory enforcement of data protection requirements as well as potential fines for noncompliance of up to €20 million or 4% of annual global revenue of the noncompliance company, whichever is greater. The GDPR imposes numerous requirements for the collection, use, storage and disclosure of personal information of EU or UK data subjects, including requirements relating to providing notice to and obtaining consent from data subjects, personal data breach notification, cross-border transfers of personal information, and honoring and providing for the rights of EU or UK individuals in relation to their personal information, including the right to access, correct and delete their data. In the United States, California recently enacted the California Consumer Privacy Act of 2018, or CCPA. The CCPA gives California residents expanded rights to access and delete their personal information, opt out of certain personal information sharing and receive detailed information about how their personal information is used. The CCPA also provides for civil penalties for violations, as well as a private right of action for data breaches that is expected to increase data breach litigation. The CCPA goes into effect on January 1, 2020, and the California Attorney General may bring enforcement actions for violations beginning July 1, 2020. A number of amendments are currently pending, and it remains unclear what, if any, further modifications will be made to this legislation or how it will be interpreted. As currently written, the CCPA may impact our business activities

and as a result may increase our compliance costs and potential liability. Many similar privacy laws have been proposed at the federal level and in other states.

Compliance with U.S. and foreign data protection laws and regulations could require us to take on more onerous obligations in our contracts, require us to engage in costly compliance exercises, restrict our ability to collect, use and disclose data, or in some cases, impact our or our partners' or suppliers' ability to operate in certain jurisdictions. Failure to comply with U.S. and foreign data protection laws and regulations could result in government investigations and/or enforcement actions, fines, civil or criminal penalties, private litigation or adverse publicity and could negatively affect our operating results and business.

Moreover, clinical trial subjects about whom we or any of our potential collaborators obtain information, as well as the providers who share this information with us, may contractually limit our ability to use and disclose the information. Claims that we have violated individuals' privacy rights, failed to comply with data protection laws or breached our contractual obligations, even if we are not found liable, could be expensive and time consuming to defend and could result in adverse publicity that could materially and adversely affect our business, financial condition, results of operations and prospects.

Our employees and independent contractors, including principal investigators, consultants, any future commercial collaborators, service providers and other vendors, may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could have an adverse effect on our results of operations.

We are exposed to the risk that our employees and independent contractors, including principal investigators, consultants, any future commercial collaborators, service providers and other vendors may engage in misconduct or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct or other unauthorized activities that violate the laws and regulations of the FDA and other similar regulatory bodies, including those laws that require the reporting of true, complete and accurate information to such regulatory bodies; manufacturing standards; U.S. federal and state healthcare fraud and abuse, data privacy laws and other similar non-U.S. laws; or laws that require the true, complete and accurate reporting of financial information or data. Activities subject to these laws also involve the improper use or misrepresentation of information obtained in the course of clinical trials, the creation of fraudulent data in our preclinical studies or clinical trials, or illegal misappropriation of product, which could result in regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter misconduct by employees and other third parties, and the 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 such laws or regulations. In addition, we are subject to the risk that a person or government could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and financial results, including, without limitation, the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, disgorgements, possible exclusion from participation in Medicare, Medicaid and other U.S. healthcare programs, other sanctions, imprisonment, contractual damages, reputational harm, diminished profits and future earnings and curtailment of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

Our business involves the use of hazardous materials, and we and our third-party manufacturers and suppliers must comply with environmental laws and regulations, which can be expensive and restrict how we do business.

Our research and development activities and our third-party manufacturers' and suppliers' activities involve the controlled storage, use and disposal of hazardous materials owned by us, including the components of our product candidates and other hazardous compounds. We and any third-party manufacturers and suppliers are

subject to numerous federal, state and local environmental, health and safety laws, regulations and permitting requirements, including those governing laboratory procedures; the generation, handling, use, storage, treatment and disposal of hazardous and regulated materials and wastes; the emission and discharge of hazardous materials into the ground, air and water; and employee health and safety. Our operations involve the use of hazardous and flammable materials, including chemicals and biological and radioactive materials. Our operations also produce hazardous waste. In some cases, these hazardous materials and various wastes resulting from their use are stored at our and our manufacturers' facilities pending their use and disposal. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination, which could cause an interruption of our commercialization efforts, research and development efforts and business operations, and environmental damage resulting in costly clean-up and liabilities under applicable laws and regulations governing the use, storage, handling and disposal of these materials and specified waste products.

We cannot guarantee that the safety procedures utilized by our third-party manufacturers for handling and disposing of these materials comply with the standards prescribed by these laws and regulations, nor can we eliminate the risk of accidental contamination or injury from these materials. Under certain environmental laws, we could be held responsible for costs relating to any contamination at our current or past facilities and at third-party facilities. In such an event, we may be held liable for any resulting damages and such liability could exceed our resources, and state or federal or other applicable authorities may curtail our use of certain materials and/or interrupt our business operations. 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.

Compliance with applicable environmental laws and regulations may be expensive, and current or future environmental laws and regulations may impair our research, product development and manufacturing efforts. In addition, we cannot entirely eliminate the risk of accidental injury or contamination from hazardous materials or wastes. Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not carry specific biological or hazardous waste insurance coverage, and our property, casualty and general liability insurance policies specifically exclude coverage for damages and fines arising from biological or hazardous waste exposure or contamination. Accordingly, in the event of contamination or injury, we could be held liable for damages or be penalized with fines in an amount exceeding our resources, and our clinical trials or regulatory approvals could be suspended, which could have a material adverse effect on our business, results of operations and financial condition.

Risks Related to Intellectual Property

Our current and any future product candidates or products could be alleged to infringe patent rights and other proprietary rights of third parties, which may require costly litigation and, if we are not successful, could cause us to pay substantial damages and/or limit our ability to commercialize our products.

Our commercial success depends on our ability to develop, manufacture and market our current and any future product candidates that may be approved for sale, and to use our proprietary technology without infringing the patents and other proprietary rights of third parties. Intellectual property disputes can be costly to defend and may cause our business, operating results and financial condition to suffer. We operate in an industry with extensive intellectual property litigation. As the pharmaceutical, biopharmaceutical and biotechnology industries expand and more patents are issued, the risk increases that there may be patents issued to third parties that relate to our products and technology of which we are not aware or that we may need to challenge to continue our operations as currently contemplated.

Whether merited or not, we may face allegations that we have infringed the trademarks, copyrights, patents and other intellectual property rights of third parties, including patents held by our competitors or by non-practicing entities. We may also face allegations that our employees have misappropriated the intellectual

property rights of their former employers or other third parties. Litigation may make it necessary to defend ourselves by determining the scope, enforceability and validity of third-party proprietary rights, or to establish our proprietary rights. Regardless of whether claims that we are infringing patents or other intellectual property rights have merit, the claims can be time consuming, divert management attention and financial resources and are costly to evaluate and defend. Results of any such litigation are difficult to predict and may require us to stop treating certain conditions, obtain licenses or modify our products and features while we develop non-infringing substitutes, or may result in significant settlement costs. For example, litigation can involve substantial damages for infringement, and if the court finds that the infringement was willful, we could be ordered to pay treble damages and the patent owner's attorneys' fees. We may also be prohibited from selling or licensing our products unless the third party licenses rights to us, which it is not required to do at a commercially reasonable price or at all. If a license is available from a third party, we may have to pay substantial royalties or upfront fees or grant cross-licenses to intellectual property rights for our products. We may also have to redesign our products so they do not infringe third-party intellectual property rights, which may not be possible or may require substantial monetary expenditures and time, during which our products may not be available for manufacture, use or sale.

Although we have reviewed certain third-party patents and patent filings that we believe may be relevant to our product candidates, we have not conducted a freedom-to-operate search or analysis for any of our product candidates, and we may not be aware of patents or pending or future patent applications that, if issued, would block us from commercializing our product candidates. Thus, we cannot guarantee that our product candidates, or our commercialization thereof, do not and will not infringe any third party's intellectual property.

In addition, patent applications in the United States and many international jurisdictions are typically not published until 18 months after the filing of certain priority documents (or, in some cases, are not published until they issue as patents), and publications in the scientific literature often lag behind actual discoveries. Therefore, we cannot be certain that others have not filed patent applications or made public disclosures relating to our technology or our contemplated technology. A third party may have filed, and may in the future file, patent applications covering our product candidates or technology similar to ours. Any such patent application may have priority over our patent applications or patents, which could further require us to obtain rights to issued patents covering such technologies. If another party has filed a U.S. patent application on inventions similar to ours, depending on whether the timing of the filing date falls under certain patent laws, we may have to participate in a priority contest (such as an interference proceeding) declared by the United States Patent and Trademark Office, or USPTO, to determine priority of invention in the United States. The costs of patent litigation and other proceedings could be substantial, and it is possible that such efforts would be unsuccessful if it is determined that the other party had independently arrived at the same or similar invention prior to our own invention, resulting in a loss of our U.S. patent position with respect to such invention.

From time to time, we may be subject to legal proceedings and claims in the ordinary course of business with respect to intellectual property. We may receive claims from third parties asserting infringement of their intellectual property rights. Future litigation may be necessary to establish our intellectual property rights or to defend ourselves by determining the scope, enforceability and validity of third-party intellectual property rights. There can be no assurance with respect to the outcome of any current or future litigation brought by or against us, and the outcome of any such litigation could have a material adverse impact on our business, operating results and financial condition. Litigation is inherently unpredictable, and outcomes are uncertain. Further, as the costs and outcome of these types of claims and proceedings can vary significantly, it is difficult to estimate potential losses that may occur. Accordingly, we are unable at this time to estimate the effects of these potential future lawsuits on our financial condition, operations or cash flows.

Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can. Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses, and could distract our technical and management personnel from their normal responsibilities. In addition, there 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 material adverse effect on the price of our common stock. Any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations.

If we are unable to obtain, maintain and enforce intellectual property protection directed to our current and any future technologies that we develop, others may be able to make, use or sell products substantially the same as ours, which could adversely affect our ability to compete in the market.

We have not pursued or maintained, and may not pursue or maintain in the future, patent protection for our product candidates in every country or territory in which we may sell our products. In addition, we cannot be sure that any of our pending patent applications or pending trademark applications will issue or that, if issued, they will issue in a form that will provide adequate protection. The U.S. Patent and Trademark Office, or USPTO, international patent offices or judicial bodies may deny or significantly narrow claims made under our patent applications, and our issued patents may be successfully challenged, may be designed around or may otherwise be of insufficient scope to provide us with protection for our products. Further, the USPTO, international trademark offices or judicial bodies may deny our trademark applications and, even if published or registered, these trademarks may not effectively protect our brand and goodwill. Like patents, trademarks also may be successfully opposed or challenged.

We cannot be certain that the steps we have taken will prevent unauthorized use or unauthorized reverse engineering of our technology. Moreover, third parties may independently develop technologies that are competitive with ours and such competitive technologies may or may not infringe our intellectual property. The enforcement of our intellectual property rights also depends on the success of any legal actions we may take against these infringers in the respective country or forum, but these actions may not be successful. As with all granted intellectual property, such intellectual property may be challenged, invalidated or circumvented, may not provide protection and/or may not prove to be enforceable in actions against specific alleged infringers.

The market for pharmaceuticals and biopharmaceuticals is highly competitive and subject to rapid technological change. Our success depends, in part, upon our ability to maintain a competitive position in the development and protection of technologies and any future products for use in these fields and upon our ability to obtain, maintain and enforce our intellectual property rights. We seek to obtain and maintain patents and other intellectual property rights to restrict the ability of others to market products that misappropriate our technology and/or infringe our intellectual property to unfairly and illegally compete with any future products. If we are unable to protect our intellectual property and proprietary rights, our competitive position and our business could be harmed, as third parties may be able to make, use or sell products that are substantially the same as any future products we may sell without incurring the sizeable development and licensing costs that we have incurred, which would adversely affect our ability to compete in the market.

We use a combination of patents, trademarks, know-how, confidentiality procedures and contractual provisions to protect our proprietary technology. However, these protections may not be adequate and may not provide us with any competitive advantage. For example, patents may not issue from any of our currently pending or any future patent applications, and our issued patents and any future patents that may issue may not survive legal challenges to their scope, validity or enforceability, or provide significant protection for us.

If we or any future collaborators we may have were to initiate legal proceedings against a third party to enforce a patent covering one of our product candidates or future product candidates, the defendant could counterclaim that our patent is invalid and/or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including obviousness or lack of novelty, enablement or written description. 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. Third parties may also raise similar claims before the USPTO even outside the context of litigation. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to validity, 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 were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our product candidates. Such a loss of patent protection would have a material adverse impact on our business.

Even if our patents are determined by a court to be valid and enforceable, they may not be interpreted sufficiently broadly to prevent others from marketing products similar to ours or designing around our patents. For example, third parties may be able to make products that are similar to ours but that are not covered by the claims of our patents. Third parties may assert that we or our licensors were not the first to make the inventions covered by our issued patents or pending patent applications. The claims of our issued patents or patent applications when issued may not cover our product candidates or any future products that we develop. We may not have freedom to commercialize unimpeded by the patent rights of others. Third parties may have patents that dominate, block or are otherwise relevant to our technology. There may be prior public disclosures or other art that could be deemed to invalidate one or more of our patent claims. Further, we may not develop additional proprietary technologies in the future, and, if we do, they may not be patentable.

Patent law can be highly uncertain and involve complex legal and factual questions for which important principles remain unresolved. In the United States and in many international jurisdictions, policies regarding the breadth of claims allowed in patents can be inconsistent. The U.S. Supreme Court and the Court of Appeals for the Federal Circuit have made, and will likely continue to make, changes in how the patent laws of the United States are interpreted. Similarly, international courts have made, and will likely continue to make, changes in how the patent laws in their respective jurisdictions are interpreted. We cannot predict future changes in the interpretation of patent laws or changes to patent laws that might be enacted into law by U.S. and international legislative bodies. Those changes may materially affect the patents and patent applications of our licensors, our existing or future patents and patent applications and our ability to obtain additional patents in the future.

Patent reform legislation in the United States could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. For example, on September 16, 2011, the Leahy-Smith America Invents Act, or Leahy-Smith Act, was signed into law. The Leahy-Smith Act included a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted, redefine prior art, may affect patent litigation and switch the U.S. patent system from a “first-to-invent” system to a “first-to-file” system. Under a “first-to-file” system, assuming the other requirements for patentability are met, the first inventor to file a patent application generally will be entitled to the patent on an invention regardless of whether another inventor had made the invention earlier. The USPTO has developed regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first-to-file provisions, only became effective on March 16, 2013. The Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, which could have a material adverse effect on our business and financial condition. Any future changes in the patent laws of the United States, or even the possibility of such changes, may further increase these uncertainties and costs.

In addition, we have a number of international patents and patent applications, and expect to continue to pursue patent protection in many of the significant markets in which we intend to do business. The laws of some international jurisdictions may not protect intellectual property rights to the same extent as laws in the United States, and many companies have encountered significant difficulties in obtaining, protecting and defending such rights in international jurisdictions. If we encounter such difficulties or we are otherwise precluded from effectively protecting our intellectual property rights in international jurisdictions, our business, financial condition, results of operations and prospects could be materially and adversely affected. Earlier patent filings in

certain international countries may also permit third parties to allege priority to certain technology in those countries.

Patent terms may be shortened or lengthened by, for example, terminal disclaimers, patent term adjustments, supplemental protection certificates and patent term extensions. Patent term extensions and supplemental protection certificates, and the like, may be impacted by the regulatory process and may not significantly lengthen patent term. Non-payment or delay in payment of patent fees or annuities, delay in patent filings or delay in extension filing (including any patent term extension or adjustment filing), whether intentional or unintentional, may also result in the loss of patent rights important to our business. Certain countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to other parties. In addition, 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.

In addition to the protection afforded by patents, we rely on confidentiality agreements to protect confidential information and proprietary know-how that is not patentable or that we elect not to patent, processes for which patents are difficult to enforce and any other elements of our product candidate discovery and development processes that involve proprietary know-how, information or technology that is not covered by patents. We seek to protect our proprietary technology and processes, in part, by entering into confidentiality agreements with our employees, consultants, scientific advisors and contractors. We cannot guarantee that we have entered into such agreements with each party that may have or have had access to our confidential information or proprietary technology and processes. We also seek to preserve the integrity and confidentiality of our data and other confidential information by maintaining physical security of our premises and physical and electronic security of our information technology systems. Agreements or security measures may be breached, and detecting the disclosure or misappropriation of confidential information and enforcing a claim that a party illegally disclosed or misappropriated confidential information is difficult, expensive and time-consuming, and the outcome is unpredictable. Further, we may not be able to obtain adequate remedies for any breach. In addition, our confidential information may otherwise become known or be independently discovered by competitors, in which case we would have no right to prevent them, or those to whom they communicate it, from using that technology or information to compete with us. We rely on trade secret protection, which would be subject to the risks identified above with respect to confidential information.

Monitoring unauthorized use of our intellectual property is difficult and costly. From time to time, we review our competitors' products, and may in the future seek to enforce our patents or other rights against potential infringement. However, the steps we have taken to protect our proprietary rights may not be adequate to prevent misappropriation of our intellectual property. We may not be able to detect unauthorized use of, or take appropriate steps to enforce, our intellectual property rights. Our competitors may also independently develop similar technology. Any inability to meaningfully protect our intellectual property could result in competitors offering products competitive to our products. In addition, we may need to defend our patents from third-party challenges, such as interferences, derivation proceedings, re-examination proceedings, post-grant review, inter partes review, third-party submissions, oppositions, nullity actions or other patent proceedings. We may need to initiate infringement claims or litigation.

Adverse proceedings such as litigation can be expensive, time consuming and may divert the efforts of our technical and managerial personnel, which could in turn materially and adversely affect our business, financial condition, results of operations and prospects, whether or not we receive a determination favorable to us. In addition, in an infringement proceeding, a court or other judicial body may decide that the patent we seek to enforce is invalid or unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that the patent in question does not cover the technology in question or that stopping the other party would harm the public interest. An adverse result in any litigation could put one or more of our patents at risk of being invalidated or interpreted narrowly. Some of our competitors may be able to devote significantly more resources to intellectual property litigation, and may have significantly broader patent portfolios to assert against

us if we assert our rights against them. Further, because of the substantial discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be disclosed or otherwise compromised during litigation.

We may not be able to correctly estimate or control our future operating expenses in relation to obtaining intellectual property, enforcing intellectual property and/or defending intellectual property, which could affect operating expenses. Our operating expenses may fluctuate significantly in the future as a result of a variety of factors, including the costs of preparing, filing, prosecuting, defending and enforcing patent and trademark claims and other intellectual property-related costs, including adverse proceedings and litigation costs.

We license patent rights from third-party owners. Such licenses may be subject to early termination if we fail to comply with our obligations in our licenses with third parties, which could result in the loss of rights or technology that are material to our business.

We are a party to licenses that give us rights to third-party intellectual property that are necessary or useful for our business, and we may enter into additional licenses in the future. Under these license agreements we are obligated to pay the licensor fees, which may include annual license fees, milestone payments, royalties, a percentage of revenues associated with the licensed technology and a percentage of sublicensing revenue. In addition, under certain of such agreements, we are required to diligently pursue the development of products using the licensed technology. If we fail to comply with these obligations and fail to cure our breach within a specified period of time, the licensor may have the right to terminate the applicable license, in which event we could lose valuable rights and technology that are material to our business.

If the licensor retains control of prosecution of the patents and patent applications licensed to us, we may have limited or no control over the manner in which the licensor chooses to prosecute or maintain its patents and patent applications and have limited or no right to continue to prosecute any patents or patent applications that the licensor elects to abandon.

Our intellectual property agreements with third parties may be subject to disagreements over contract interpretation, which could narrow the scope of our rights to the relevant intellectual property or technology or increase our financial or other obligations to our licensors.

Certain provisions in our intellectual property agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could affect the scope of our rights to the relevant intellectual property or technology, or affect financial or other obligations under the relevant agreement, any of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

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. Our assignment agreements may not be self-executing or may be breached, and we may be forced to bring claims against third parties, or defend claims they may bring against us, to determine the ownership of what we regard as our intellectual property.

We jointly own certain patent rights with third parties. Our ability to out-license these patent rights, or to prevent the third party from out-licensing these patent rights, may be limited in certain countries.

We jointly own certain patents and patent applications with third parties, and may jointly own patents and patent applications with third parties in the future. Unless we enter into an agreement with the joint owner, we will be subject to certain default rules pertaining to joint ownership. Certain countries require the consent of all joint owners to license jointly owned patents, and if we are unable to obtain such consent from the joint owner,

we may not be able to license our rights under these patents and patent applications. In certain other countries, including the United States, the joint owner could license its rights under these patents and patent applications to another party without our consent and without any duty of accounting to us.

We may be subject to claims challenging the inventorship or ownership of our patents and other intellectual property.

We may also be subject to claims that former employees, any future collaborators or other third parties have an ownership interest in our patents or other intellectual property. Litigation may be necessary to defend against these and other claims challenging inventorship or ownership. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights and could even face litigation for infringing patents that we had regarded as ours. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and distraction to management and other employees.

We may not be able to protect our intellectual property rights throughout the world.

Filing, prosecuting and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in 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 may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products, and may export otherwise infringing products to territories where we have patent protection but enforcement is not as strong as that in the United States. These products may compete with any future products we may sell, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to pharmaceuticals and biopharmaceuticals, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs 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, and the damages or other remedies awarded, if any, may not be commercially meaningful. 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.

If our trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our markets of interest and our business may be adversely affected.

Our registered or unregistered trademarks or trade names may be challenged, infringed, circumvented, declared generic or conflict with third-party rights. We may not be able to protect our rights to these trademarks and trade names, which we need to build name recognition with potential partners, physicians or patients in our markets of interest. In addition, third parties may file first for our trademarks in certain countries. If they succeeded 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 future products in those countries. In such cases, over the long term, if we are unable to establish name recognition based on our trademarks and trade names, then our commercial success abilities may be impacted.

Risks Related to Government Regulation

Even if we obtain regulatory approval for a product candidate, our products will remain subject to regulatory scrutiny.

If our product candidates are approved, they will be subject to ongoing regulatory requirements for manufacturing, labeling, packaging, storage, advertising, promotion, sampling, record-keeping, conduct of post-marketing studies and submission of safety, efficacy and other post-market information, including both federal and state requirements in the United States and requirements of comparable foreign regulatory authorities.

Manufacturers and manufacturers' facilities are required to comply with extensive FDA and comparable foreign regulatory authority requirements, including ensuring that quality control and manufacturing procedures conform to cGMP regulations. As such, we and our contract manufacturers will be subject to continual review and inspections to assess compliance with cGMP and adherence to commitments made in any approved marketing application. Accordingly, we and others with whom we work must continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production and quality control.

We will have to comply with requirements concerning advertising and promotion for any future products. Promotional communications with respect to prescription drugs and biologics are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product's approved label. We may not promote products for indications or uses for which they do not have approval. The holder of an approved application must submit new or supplemental applications and obtain approval for certain changes to the approved product, product labeling or manufacturing process. We could also be asked to conduct post-marketing clinical trials to verify the safety and efficacy of our products in general or in specific patient subsets. An unsuccessful post-marketing study or failure to complete such a study could result in the withdrawal of marketing approval.

If a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, or disagrees with the promotion, marketing or labeling of a product, such regulatory agency may impose restrictions on that product or us, including requiring withdrawal of the product from the market. If we fail to comply with applicable regulatory requirements, a regulatory agency or enforcement authority may, among other things:

- issue warning letters;
- impose civil or criminal penalties;
- suspend or withdraw regulatory approval;
- suspend any of our clinical trials;
- refuse to approve pending applications or supplements to approved applications submitted by us;
- impose restrictions on our operations, including closing our contract manufacturers' facilities; or
- seize or detain products, or require a product recall.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response, and could generate negative publicity. Any failure to comply with ongoing regulatory requirements may significantly and adversely affect our ability to commercialize and generate revenue from any future products. If regulatory sanctions are applied or if regulatory approval is withdrawn, the value of our company and our operating results will be adversely affected.

Moreover, the policies of the FDA and of other regulatory authorities may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from

future legislation or administrative or executive action, either in the United States or abroad. For example, certain policies of the Trump administration may impact our business and industry. Namely, the Trump administration has taken several executive actions, including the issuance of a number of Executive Orders, that could impose significant burdens on, or otherwise materially delay, the FDA's ability to engage in routine oversight activities such as implementing statutes through rulemaking, issuance of guidance and review and approval of marketing applications. It is difficult to predict how these orders will be implemented, and the extent to which they will impact the FDA's ability to exercise its regulatory authority. If these executive actions impose restrictions on the FDA's ability to engage in oversight and implementation activities in the normal course, our business may be negatively impacted. In addition, if we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability.

Enacted and future healthcare legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and may affect the prices we may set.

In the United States, the European Union and other jurisdictions, there have been, and we expect there will continue to be, a number of legislative and regulatory changes and proposed changes to the healthcare system that could affect our future results of operations. In particular, there have been and continue to be a number of initiatives at the U.S. federal and state levels that seek to reduce healthcare costs and improve the quality of healthcare. For example, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively the Affordable Care Act, was enacted, which substantially changed the way healthcare is financed by both governmental and private insurers. Among the provisions of the Affordable Care Act, those of greatest importance to the pharmaceutical, biopharmaceutical and biotechnology industries include the following:

- an annual, non-deductible fee payable by any entity that manufactures or imports certain branded prescription drugs and biologic agents (other than those designated as orphan drugs), which is apportioned among these entities according to their market share in certain government healthcare programs;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 70% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D;
- new requirements to report certain financial arrangements with physicians and teaching hospitals, including reporting "transfers of value" made or distributed to prescribers and other healthcare providers and reporting investment interests held by physicians and their immediate family members;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program to 23.1% and 13.0% of the average manufacturer price for branded and generic drugs, respectively;
- a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected;
- extension of a manufacturer's Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to certain individuals with income at or below 133% of the federal poverty level, thereby potentially increasing a manufacturer's Medicaid rebate liability;
- a licensure framework for follow on biologic products;
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and

- establishment of a Center for Medicare & Medicaid Innovation at the Centers for Medicare & Medicaid Services, or CMS, to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending.

Since its enactment, there have been judicial, Congressional and executive branch challenges to certain aspects of the Affordable Care Act, and we expect there will be additional challenges and amendments to the Affordable Care Act in the future. Since January 2017, President Trump has signed two Executive Orders and other directives designed to delay the implementation of certain provisions of the Affordable Care Act. Concurrently, Congress has considered legislation that would repeal or repeal and replace all or part of the Affordable Care Act. While Congress has not passed comprehensive repeal legislation, it has enacted laws that modify certain provisions of the Affordable Care Act such as removing penalties for not complying with the Affordable Care Act's individual mandate to carry health insurance and delaying the implementation of certain fees mandated by the Affordable Care Act. On December 14, 2018, a U.S. District Court Judge in the Northern District of Texas, or Texas District Court Judge, ruled that the individual mandate is a critical and inseverable feature of the Affordable Care Act, and therefore, because it was repealed as part of the Tax Cuts and Jobs Act, the remaining provisions of the Affordable Care Act are invalid as well. While the Texas District Court Judge, as well as the Trump Administration and CMS, have stated that the ruling will have no immediate effect, it is unclear how this decision, subsequent appeals and other efforts to repeal and replace the Affordable Care Act will impact the Affordable Care Act and our business. In addition, other legislative changes have been proposed and adopted in the United States since the Affordable Care Act was enacted. In August 2011, the Budget Control Act of 2011, among other things, led to aggregate reductions of Medicare payments to providers of 2% per fiscal year. These reductions went into effect in April 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2027 unless additional action is taken by Congress. In January 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several types of providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws or any other similar laws introduced in the future may result in additional reductions in Medicare and other health care funding, which could negatively affect our customers and accordingly, our financial operations.

Moreover, payment methodologies may be subject to changes in healthcare legislation and regulatory initiatives. For example, CMS may develop new payment and delivery models, such as bundled payment models. In addition, recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in several U.S. Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under government payor programs, and review the relationship between pricing and manufacturer patient programs. The Trump administration released a "Blueprint," or plan, to lower drug prices and reduce out of pocket costs of prescription drugs that contains additional proposals to increase drug manufacturer competition, increase the negotiating power of certain federal healthcare programs, incentivize manufacturers to lower the list price of their products, and reduce the out of pocket costs of drug products paid by consumers. The Department of Health and Human Services, or HHS, has already started the process of soliciting feedback on some of these measures and, at the same time, is immediately implementing others under its existing authority. While some proposed measures will require authorization through additional legislation to become effective, Congress and the Trump administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs. We expect that additional U.S. federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that the U.S. federal government will pay for healthcare products and services, which could result in reduced demand for our product candidates or additional pricing pressures. Individual states in the United States have also become increasingly aggressive in passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. Legally-mandated price controls on payment

amounts by third-party payors or other restrictions could materially and adversely affect our business, financial condition, results of operations and prospects. In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other healthcare programs. This could reduce the ultimate demand for our product candidates or put pressure on our product pricing.

In the European Union, similar political, economic and regulatory developments may affect our ability to profitably commercialize our product candidates, if approved. In addition to continuing pressure on prices and cost containment measures, legislative developments at the European Union or member state level may result in significant additional requirements or obstacles that may increase our operating costs. The delivery of healthcare in the European Union, including the establishment and operation of health services and the pricing and reimbursement of medicines, is almost exclusively a matter for national, rather than EU, law and policy. National governments and health service providers have different priorities and approaches to the delivery of health care and the pricing and reimbursement of products in that context. In general, however, the healthcare budgetary constraints in most EU member states have resulted in restrictions on the pricing and reimbursement of medicines by relevant health service providers. Coupled with ever-increasing EU and national regulatory burdens on those wishing to develop and market products, this could prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to commercialize our product candidates, if approved. In markets outside of the United States and EU, reimbursement and healthcare payment systems vary significantly by country, and many countries have instituted price ceilings on specific products and therapies.

We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative or judicial action in the United States, the European Union or any other jurisdiction. If we or any third parties we may engage are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we or such third parties are not able to maintain regulatory compliance, our product candidates may lose any regulatory approval that may have been obtained and we may not achieve or sustain profitability.

If we choose to develop a small molecule product candidate and it obtains regulatory approval, additional competitors could enter the market with generic versions of such drugs, which may result in a material decline in sales of affected products.

Under the Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Act, a pharmaceutical manufacturer may file an abbreviated new drug application, or ANDA, seeking approval of a generic version of an approved, small molecule innovator product. Under the Hatch-Waxman Act, a manufacturer may also submit a new drug application, or NDA, under section 505(b)(2) of the Federal Food, Drug, and Cosmetic Act that references the FDA's prior approval of the small molecule innovator product. A 505(b)(2) NDA product may be for a new or improved version of the original innovator product. The Hatch-Waxman Act also provides for certain periods of regulatory exclusivity, which preclude FDA approval (or in some circumstances, FDA filing and review) of an ANDA or 505(b)(2) NDA. In addition to the benefits of regulatory exclusivity, an innovator NDA holder may have patents claiming the active ingredient, product formulation or an approved use of the drug, which would be listed with the product in the FDA publication, "Approved Drug Products with Therapeutic Equivalence Evaluations," known as the Orange Book. If there are patents listed in the Orange Book for a product, a generic or 505(b)(2) applicant that seeks to market its product before expiration of the patents must include in their applications what is known as a "Paragraph IV" certification, challenging the validity or enforceability of, or claiming non-infringement of, the listed patent or patents. Notice of the certification must be given to the patent owner and NDA holder and if, within 45 days of receiving notice, either the patent owner or NDA holder sues for patent infringement, approval of the ANDA or 505(b)(2) NDA is stayed for up to 30 months.

Accordingly, if we choose to develop a small molecule product candidate, and the product is approved, competitors could file ANDAs for generic versions of our small molecule drug products or 505(b)(2) NDAs that

reference our small molecule drug products. If there are patents listed for our small molecule drug products in the Orange Book, those ANDAs and 505(b)(2) NDAs would be required to include a certification as to each listed patent indicating whether the ANDA applicant does or does not intend to challenge the patent. We cannot predict which, if any, patents in our current portfolio or patents we may obtain in the future will be eligible for listing in the Orange Book, how any generic competitor would address such patents, whether we would sue on any such patents, or the outcome of any such suit.

We may not be successful in securing or maintaining proprietary patent protection for products and technologies we develop or license. Moreover, if any of our owned or in-licensed patents that are listed in the Orange Book are successfully challenged by way of a Paragraph IV certification and subsequent litigation, the affected product could immediately face generic competition and its sales would likely decline rapidly and materially.

Our business operations and current and future relationships with investigators, healthcare professionals, consultants, third-party payors, patient organizations and customers will be subject to applicable healthcare regulatory laws, which could expose us to penalties.

Our business operations and current and future arrangements with investigators, healthcare professionals, consultants, third-party payors, patient organizations and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations. These laws may constrain the business or financial arrangements and relationships through which we conduct our operations, including how we research, market, sell and distribute our product candidates, if approved. Such laws include, without limitation:

- the U.S. federal civil and criminal Anti-Kickback Statute, which prohibits, among other things, persons or entities from knowingly and willfully soliciting, offering, receiving or providing any remuneration (including any kickback, bribe, or certain rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, lease, order or recommendation of, any good, facility, item or service, for which payment may be made, in whole or in part, under U.S. federal and state healthcare programs such as Medicare and Medicaid. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- the U.S. federal false claims laws, including the False Claims Act, which can be enforced through whistleblower actions, and civil monetary penalties laws, which, among other things, impose criminal and civil penalties against individuals or entities for knowingly presenting, or causing to be presented, to the U.S. federal government, claims for payment or approval that are false or fraudulent, knowingly making, using or causing to be made or used, a false record or statement material to a false or fraudulent claim, or from knowingly making a false statement to avoid, decrease or conceal an obligation to pay money to the U.S. federal government. In addition, the government may assert that a claim including items and services resulting from a violation of the U.S. federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act;
- HIPAA, which imposes criminal and civil liability for, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, or knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement, in connection with the delivery of, or payment for, healthcare benefits, items or services; similar to the U.S. federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- HIPAA, as amended by the HITECH and its implementing regulations, which also imposes certain obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information without appropriate authorization by covered entities, such as health plans, healthcare clearinghouses and healthcare providers, as well as their business associates that perform certain services involving the use or disclosure of individually identifiable health information;

- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers;
- the U.S. Physician Payments Sunshine Act and its implementing regulations, which require certain manufacturers of drugs, devices, biologics and medical supplies that are reimbursable under Medicare, Medicaid or the Children's Health Insurance Program to report annually to the government information related to certain payments and other transfers of value to physicians and teaching hospitals, as well as ownership and investment interests held by the physicians described above and their immediate family members;
- analogous U.S. state laws and regulations, including: state anti-kickback and false claims laws, which may apply to our business practices, including but not limited to, research, distribution, sales and marketing arrangements and claims involving healthcare items or services reimbursed by any third-party payor, including private insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the U.S. federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state and local laws that require the registration of pharmaceutical sales representatives; state laws and regulations that require drug manufacturers to file reports relating to pricing and marketing information, which requires tracking gifts and other remuneration and items of value provided to healthcare professionals and entities; and state laws governing the privacy, security and disposal of personal information and health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts;
- the U.S. Foreign Corrupt Practices Act of 1977, as amended, which prohibits, among other things, U.S. companies and their employees and agents from authorizing, promising, offering or providing, directly or indirectly, corrupt or improper payments or anything else of value to foreign government officials, employees of public international organizations and foreign government owned or affiliated entities, candidates for foreign political office and foreign political parties or officials thereof; and
- similar data protection and healthcare laws and regulations in the European Union and other jurisdictions, including reporting requirements detailing interactions with and payments to healthcare providers and laws governing the privacy and security of personal data, including the GDPR, which imposes obligations and restrictions on the collection and use of personal data relating to individuals located in the European Union and European Economic Area (including with regard to health data).

Ensuring that our internal operations and future business arrangements with third parties comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices, such as the provision of stock options to physicians who may influence the ordering, prescribing or use of our product candidates, if approved, as compensation for consulting services, do not comply with current or future statutes, regulations, agency guidance or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of the laws described above or any other governmental laws and regulations that may apply to us, we may be subject to significant penalties, including civil, criminal and administrative penalties, damages, fines, exclusion from government-funded healthcare programs, such as Medicare and Medicaid or similar programs in other countries or jurisdictions, disgorgement, imprisonment, contractual damages, reputational harm, diminished profits and the curtailment or restructuring of our operations. Further, defending against any such actions can be costly and time-consuming and may require significant personnel resources. Even if we are successful in defending against any such actions that may be brought against us, our business may be impaired.

Changes in tax laws and regulations may have a material adverse effect on our business, financial condition and results of operations.

New income, sales, use or other tax laws, statutes, rules, regulations or ordinances could be enacted at any time, which could affect the tax treatment of any of our future domestic and foreign earnings. Any new taxes

could adversely affect our domestic and international business operations, and our business and financial performance. Further, existing tax laws, statutes, rules, regulations or ordinances could be interpreted, changed, modified or applied adversely to us. For example, the U.S. government recently enacted significant tax reform, and certain provisions of the new law may adversely affect us. Changes include, but are not limited to, a federal corporate tax rate decrease to 21% for tax years beginning after December 31, 2017, a reduction to the maximum deduction allowed for net operating losses generated in tax years after December 31, 2017, eliminating carrybacks of net operating losses, and providing for indefinite carryforwards for losses generated in tax years after December 31, 2017. The legislation is unclear in many respects and could be subject to potential amendments and technical corrections, and will be subject to interpretations and implementing regulations by the Treasury and Internal Revenue Service, any of which could mitigate or increase certain adverse effects of the legislation. In addition, it is unclear how these U.S. federal income tax changes will affect state and local taxation. Generally, future changes in applicable U.S. tax laws and regulations, or their interpretation and application could have an adverse effect on our business, financial conditions and results of operations.

We are subject to U.S. and certain foreign export and import controls, sanctions, embargoes, anti-corruption laws, and anti-money laundering laws and regulations. Compliance with these legal standards could impair our ability to compete in domestic and international markets. We can face criminal liability and other serious consequences for violations, which can harm our business.

We are subject to export control and import laws and regulations, including the U.S. Export Administration Regulations, U.S. Customs regulations, various economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Controls, the U.S. Foreign Corrupt Practices Act of 1977, as amended, or FCPA, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the USA PATRIOT Act, and other state and national anti-bribery and anti-money laundering laws in the countries in which we conduct activities. Anti-corruption laws are interpreted broadly and prohibit companies and their employees, agents, contractors and other collaborators from authorizing, promising, offering or providing, directly or indirectly, improper payments or anything else of value to recipients in the public or private sector. We may engage third parties to sell our products sell our products outside the United States, to conduct clinical trials and/or to obtain necessary permits, licenses, patent registrations and other regulatory approvals. We have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities and other organizations. We can be held liable for the corrupt or other illegal activities of our employees, agents, contractors and other collaborators, even if we do not explicitly authorize or have actual knowledge of such activities. Any violations of the laws and regulations described above may result in substantial civil and criminal fines and penalties, imprisonment, the loss of export or import privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm and other consequences.

Risks Related to Our Common Stock and this Offering

Our stock price may be volatile and you may not be able to resell shares of our common stock at or above the price you paid.

The trading price of our common stock following this offering could be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. These factors include those discussed in this "Risk Factors" section of this prospectus and others such as:

- results from, and any delays in, our clinical trials for our two clinical-stage product candidates or any other future clinical development programs;
- announcements of regulatory approval or disapproval of our current or any future product candidates;
- failure or discontinuation of any of our research and development programs;
- the termination of any of our existing license agreements;
- announcements relating to any future licensing, collaboration or development agreements;

- delays in the commercialization of our current or any future product candidates;
- public misperception regarding the use of our product candidates;
- acquisitions and sales of new products or product candidates, technologies or businesses;
- manufacturing and supply issues related to our product candidates for clinical trials or future product candidates for commercialization;
- quarterly variations in our results of operations or those of our competitors;
- changes in earnings estimates or recommendations by securities analysts;
- announcements by us or our competitors of new products or product candidates, significant contracts, commercial relationships, acquisitions or capital commitments;
- developments with respect to intellectual property rights;
- our commencement of, or involvement in, litigation;
- changes in financial estimates or guidance;
- any major changes in our board of directors or management;
- new legislation or regulation in the United States relating to the sale or pricing of pharmaceuticals;
- FDA or other U.S. or foreign regulatory actions affecting us or our industry;
- product liability claims or other litigation or public concern about the safety of our product candidates;
- market conditions in the pharmaceutical, biopharmaceutical and biotechnology sectors; and
- general economic conditions in the United States and abroad.

In addition, the stock markets in general, and the markets for pharmaceutical, biopharmaceutical and biotechnology stocks in particular, have experienced extreme volatility that may have been unrelated to the operating performance of the issuer. These broad market fluctuations may adversely affect the trading price or liquidity of our common stock.

An active, liquid and orderly market for our common stock may not develop, and you may not be able to resell your common stock at or above the public offering price.

Prior to this offering, there has been no public market for shares of our common stock, and an active public market for our shares may not develop or be sustained after this offering. We and the representatives of the underwriters will determine the initial public offering price of our common stock through negotiation. This price will not necessarily reflect the price at which investors in the market will be willing to buy and sell our shares following this offering. In addition, an active trading market may not develop following the consummation of this offering or, if it is developed, may not be sustained. The lack of an active market may impair your ability to sell your shares at the time you wish to sell them or at a price that you consider reasonable. An inactive market may also impair our ability to raise capital by selling shares and may impair our ability to acquire other product candidates, businesses or technologies using our shares as consideration.

If securities or industry analysts do not publish research or reports about our business, or if they issue an adverse or misleading opinion regarding our stock, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. We do not currently have and may never obtain research coverage by securities and industry analysts. If no or few securities or industry analysts commence coverage of us, the trading price for our stock would be negatively impacted. In the event we obtain securities or industry

analyst coverage, if any of the analysts who cover us issue an adverse or misleading opinion regarding us, our business model, our intellectual property or our stock performance, or if our clinical trials and operating results fail to meet the expectations of analysts, our stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

We are an "emerging growth company," and as a result of the reduced disclosure and governance requirements applicable to emerging growth companies, our common stock may be less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act, and we intend to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. In addition, as an "emerging growth company," the JOBS Act allows us to delay adoption of new or revised accounting pronouncements applicable to public companies until such pronouncements are made applicable to private companies. We have elected to use this extended transition period under the JOBS Act. As a result, our consolidated financial statements may not be comparable to the financial statements of issuers who are required to comply with the effective dates for new or revised accounting standards that are applicable to public companies, which may make comparison of our financials to those of other public companies more difficult.

We cannot predict if investors will find our common stock less attractive because we will rely on these exemptions. 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 be more volatile. We may take advantage of these reporting exemptions until we are no longer an emerging growth company. We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year following the fifth anniversary of the consummation of this offering, (2) the last day of the fiscal year in which we have total annual gross revenue of at least $1.07 billion, (3) the last day of the fiscal year in which we are deemed to be a "large accelerated filer" as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, which would occur if the market value of our common stock held by non-affiliates exceeded $700.0 million as of the last business day of the second fiscal quarter of such year, or (4) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period.

We will incur significant costs as a result of operating as a public company, and our management will devote substantial time to new compliance initiatives. We may fail to comply with the rules that apply to public companies, including Section 404 of the Sarbanes-Oxley Act of 2002, which could result in sanctions or other penalties that could materially and adversely affect our business, financial condition, results of operations and prospects.

We will incur significant legal, accounting and other expenses as a public company, including costs resulting from public company reporting obligations under the Exchange Act and regulations regarding corporate governance practices. The listing requirements of The Nasdaq Stock Market LLC and the rules of the Securities and Exchange Commission, or SEC, require that we satisfy certain corporate governance requirements relating to director independence, filing annual and interim reports, stockholder meetings, approvals and voting, soliciting proxies, conflicts of interest and a code of conduct. Our management and other personnel will need to devote a substantial amount of time to ensure that we comply with all of these requirements. Moreover, the reporting requirements, rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. Any changes we make to comply with these obligations may not be sufficient to allow us to satisfy our obligations as a public company on a timely basis, or at all. These reporting requirements, rules and regulations, coupled with the increase in potential litigation exposure associated with being a public company, could also make it more difficult for us to attract and retain qualified persons to serve on

our board of directors or board committees or to serve as executive officers, or to obtain certain types of insurance, including directors' and officers' insurance, on acceptable terms.

After this offering, we will be subject to Section 404 and the related rules of the SEC, which generally require our management and independent registered public accounting firm to report on the effectiveness of our internal control over financial reporting. Beginning with the second annual report that we will be required to file with the SEC, Section 404 requires an annual management assessment of the effectiveness of our internal control over financial reporting. However, for so long as we remain an emerging growth company as defined in the JOBS Act, we intend to take advantage of certain exemptions from various reporting requirements that are applicable to public companies that are not emerging growth companies, including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404. Once we are no longer an emerging growth company or, if prior to such date, we opt to no longer take advantage of the applicable exemption, we will be required to include an opinion from our independent registered public accounting firm on the effectiveness of our internal control over financial reporting.

During the course of our review and testing, we may identify deficiencies and be unable to remediate them before we must provide the required reports. Furthermore, if we are unable to remediate our existing material weakness in our internal control over financial reporting, or we identify additional material weaknesses, we may not detect errors on a timely basis and our financial statements may be materially misstated. We or our independent registered public accounting firm may not be able to conclude on an ongoing basis that we have effective internal control over financial reporting, which could materially and adversely affect our business, financial condition, results of operations and prospects, cause investors to lose confidence in our reported financial information and cause the trading price of our stock to fall. In addition, as a public company we will be required to file accurate and timely quarterly and annual reports with the SEC under the Exchange Act. In order to report our results of operations and financial statements on an accurate and timely basis, we will depend in part on CROs to provide timely and accurate notice of their costs to us. Any failure to report our financial results on an accurate and timely basis could result in sanctions, lawsuits, delisting of our shares from the Nasdaq Global Market or other adverse consequences that would materially and adversely affect our business, financial condition, results of operations and prospects.

Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment.

The initial public offering price of our common stock is substantially higher than the pro forma net tangible book value per share of our common stock before giving effect to this offering. Accordingly, if you purchase our common stock in this offering, you will incur immediate substantial dilution of approximately $ per share, based on an assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover of this prospectus, and our pro forma as adjusted net tangible book value as of June 30, 2019. In addition, following this offering, purchasers in this offering will have contributed approximately % of the total gross consideration paid by stockholders to us to purchase shares of our common stock through June 30, 2019, but will own only approximately % of the shares of common stock outstanding immediately after this offering. Furthermore, if the underwriters exercise their option to purchase additional shares or outstanding options are exercised, you could experience further dilution. For a further description of the dilution that you will experience immediately after this offering, see the section titled "Dilution."

If we sell shares of our common stock in future financings, stockholders may experience immediate dilution and, as a result, our stock price may decline.

We may from time to time issue additional shares of common stock at a discount from the current trading price of our common stock. As a result, our stockholders would experience immediate dilution upon the purchase of any shares of our common stock sold at such discount. In addition, as opportunities present themselves, we may enter into financing or similar arrangements in the future, including the issuance of debt securities, preferred

stock or common stock. If we issue common stock or securities convertible into common stock, our common stockholders would experience additional dilution and, as a result, our stock price may decline.

Our principal stockholders and management own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

As of August 30, 2019, our executive officers, directors, holders of 5% or more of our capital stock and their respective affiliates beneficially owned approximately 87.9% of our voting stock and, upon the closing of this offering, that same group will hold approximately % of our outstanding voting stock (assuming no exercise of the underwriters' option to purchase additional shares and no exercise of outstanding options). Therefore, even after this offering these stockholders will have the ability to influence us through this ownership position. These stockholders may be able to determine all matters requiring stockholder approval. For example, these stockholders may be able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that you may feel are in your best interest as one of our stockholders.

Sales of a substantial number of shares of our common stock in the public market could cause our stock price to fall.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market after the lock-up and other legal restrictions on resale discussed in this prospectus lapse, the trading price of our common stock could decline. Based upon the number of shares outstanding as of August 30, 2019 (including the sale and issuance of 22,222,217 shares of our Series C redeemable convertible preferred stock on August 30, 2019 in satisfaction of the second tranche of our Series C financing and the subsequent conversion of all of our shares of redeemable convertible preferred stock into 111,748,065 shares of our common stock), upon the closing of this offering, we will have outstanding a total of shares of common stock, assuming no exercise of the underwriters' option to purchase additional shares. Of these shares, substantially all of the shares of our common stock sold in this offering (excluding any shares sold to our director or officers in the directed share program), plus any shares sold upon exercise of the underwriters' option to purchase additional shares, will be freely tradable, without restriction, in the public market immediately following this offering.

The lock-up agreements pertaining to this offering will expire 180 days from the date of this prospectus. Based upon the number of shares outstanding as of June 30, 2019, after the lock-up agreements expire, up to approximately additional shares of common stock will be eligible for sale in the public market, approximately of which shares are held by directors, executive officers and other affiliates and will be subject to Rule 144 under the Securities Act of 1933, as amended, or the Securities Act. J.P. Morgan Securities LLC, BofA Securities, Inc. and Cowen and Company, LLC may, however, in their sole discretion, permit our officers, directors and other stockholders who are subject to these lock-up agreements to sell shares prior to the expiration of the lock-up agreements.

In addition, as of June 30, 2019, approximately 21,684,277 shares of common stock that are either subject to outstanding options or reserved for future issuance under our equity incentive plans will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements and Rule 144 and Rule 701 under the Securities Act. If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

After this offering, the holders of approximately 111,748,065 shares of our common stock, or approximately % of our total outstanding shares of common stock, will be entitled to rights with respect to the registration of their shares under the Securities Act, subject to the lock-up agreements described above. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the

Securities Act, except for shares purchased by affiliates. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock.

We have broad discretion to determine how to use the funds raised in this offering, and may use them in ways that may not enhance our operating results or the price of our common stock.

Our management will have broad discretion over the use of proceeds from this offering, and we could spend the proceeds from this offering in ways our stockholders may not agree with or that do not yield a favorable return, if at all. We currently expect to use the net proceeds of this offering, together with our existing cash and cash equivalents, to fund: the Phase 2 and drug-drug interaction clinical trials of ANX005 in GBS and GMP manufacturing activities for ANX005; the Phase 2a clinical trials of ANX005 in HD and ALS and the Phase 2 clinical trial of ANX005 in wAIHA; the preparation for Phase 2 clinical development of ANX007 in geographic atrophy and GMP manufacturing activities for ANX007; the advancement of our earlier-stage programs, including ANX009, and certain other research and development activities; and the remainder for working capital and other general corporate purposes. However, our use of these proceeds may differ substantially from our current plans. If we do not invest or apply the proceeds of this offering in ways that improve our operating results, we may fail to achieve expected financial results, which could cause our stock price to decline.

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

Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change," generally defined as a greater than 50 percentage point change (by value) in its equity ownership by certain stockholders over a three-year period, the corporation's ability to use its pre-change net operating loss carryforwards, or NOLs, and other pre-change tax attributes (such as research and development tax credits) to offset its post-change income or taxes may be limited. We may have experienced ownership changes in the past and may experience ownership changes as a result of this offering and/or subsequent shifts in our stock ownership (some of which are outside our control). As a result, our ability to use our pre-change NOLs and tax credits to offset future taxable income, if any, could be subject to limitations. Similar provisions of state tax law may also apply. As a result, even if we attain profitability, we may be unable to use a material portion of our NOLs and tax credits.

Provisions in our charter documents and under Delaware law could discourage a takeover that stockholders may consider favorable and may lead to entrenchment of management.

Our amended and restated certificate of incorporation and amended and restated bylaws, both of which will become effective immediately prior to the completion of this offering, will contain provisions that could delay or prevent changes in control or changes in our management without the consent of our board of directors. These provisions will include the following:

- a classified board of directors with three-year staggered terms, which may delay the ability of stockholders to change the membership of a majority of our board of directors;
- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- the exclusive right of our board of directors to elect a director to fill a vacancy, however occurring, including by an expansion of the board of directors, which prevents stockholders from being able to fill vacancies on our board of directors;
- the ability of our board of directors to authorize the issuance of shares of preferred stock and to determine the price and other terms of those shares, including voting or other rights or preferences, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquiror;

- the ability of our board of directors to alter our amended and restated bylaws without obtaining stockholder approval;
- the required approval of at least 66 2/3% of the shares entitled to vote at an election of directors to adopt, amend or repeal our amended and restated bylaws or repeal the provisions of our amended and restated certificate of incorporation regarding the election and removal of directors;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- the requirement that a special meeting of stockholders may be called only by 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; and
- advance notice procedures that stockholders must comply with in order to nominate candidates to our board of directors or to propose matters to 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 us.

We are also subject to the anti-takeover provisions contained in Section 203 of the Delaware General Corporation Law. Under Section 203, a corporation may not, in general, engage in a business combination with any holder of 15% or more of its capital stock unless the holder has held the stock for three years or, among other exceptions, the board of directors has approved the transaction. For a description of our capital stock, see the section titled "Description of Capital Stock."

As a California-domiciled public company, we will be required to have at least one woman on our board of directors by the end of 2019 and two or three women on our board of directors by the end of 2021, depending on the size of our board at the time.

Our success depends in part on our continued ability to attract, retain and motivate highly qualified individuals to our board of directors. As a public company headquartered in California, we will be required to have at least one woman on our board of directors by the end of 2019. By the end of 2021, we are required to have two or three women on our board of directors, depending on the size of our board of directors at the time. While we currently meet the requirement to have at least one woman on the board of directors, recruiting and retaining board members carries uncertainty, and failure to comply with this California requirement will result in financial penalties.

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 will 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 into with our directors and officers will provide that:

- we will indemnify our directors and officers for serving us in those capacities or for serving other business enterprises at our request, 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 shall undertake to repay such advances if it is ultimately determined that such person is not entitled to indemnification;
- we will not be obligated pursuant to our amended and restated bylaws to indemnify a person with respect to proceedings initiated by that person against us or our other indemnitees, except with respect to proceedings authorized by our board of directors or brought to enforce a right 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.

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 will provide that the Court of Chancery of the State of Delaware (or, in the event that the Court of Chancery does not have jurisdiction, the federal district court for the District of Delaware or other state courts of the State of Delaware) is the exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a claim of breach of fiduciary duty, any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws, or any action asserting a claim against us that is governed by the internal affairs doctrine; provided that, the exclusive forum provision will not apply to suits brought to enforce any liability or duty created by the Securities Act or the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction; and provided further 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. Nothing in our amended and restated certificate of incorporation precludes stockholders that assert claims under the Securities Act or the Exchange Act from bringing such claims in state or federal court, subject to applicable law.

This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims, although our stockholders will not be deemed to have waived our compliance with federal securities laws and the rules and regulations thereunder. If a court were to find the choice of forum provision that will be contained in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could adversely affect our business and financial condition.

We do not currently intend to pay dividends on our common stock, and, consequently, your ability to achieve a return on your investment will depend on appreciation in the price of our common stock.

We do not currently intend to pay any cash dividends on our common stock for the foreseeable future. We currently intend to invest our future earnings, if any, to fund our growth. Therefore, you are not likely to receive any dividends on your common stock for the foreseeable future. Since we do not intend to pay dividends, your ability to receive a return on your investment will depend on any future appreciation in the market value of our common stock. There is no guarantee that our common stock will appreciate or even maintain the price at which our holders have purchased it.

We may be subject to securities litigation, which is expensive and could divert our management's attention.

In the past, companies that have experienced volatility in the market price of their securities have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Regardless of the merits or the ultimate results of such litigation, securities litigation brought against us could result in substantial costs and divert our management's attention from other business concerns.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements about us and our industry that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this prospectus, including statements regarding our strategy, future financial condition, future operations, projected costs, prospects, plans, objectives of management and expected market growth, are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "aim," "anticipate," "assume," "believe," "contemplate," "continue," "could," "design," "due," "estimate," "expect," "goal," "intend," "may," "objective," "plan," "positioned," "potential," "predict," "seek," "should," "target," "will," "would" and other similar expressions that are predictions of or indicate future events and future trends, or the negative of these terms or other comparable terminology. These forward-looking statements include, but are not limited to, statements about:

- our expectations regarding the potential market size and size of the potential patient populations for our product candidates and any future product candidates, if approved for commercial use;
- our clinical and regulatory development plans;
- our expectations with regard to the results of our clinical studies, preclinical studies and research and development programs, including the timing and availability of data from such studies;
- the timing of commencement of future nonclinical studies and clinical trials and research and development programs;
- our ability to acquire, discover, develop and advance product candidates into, and successfully complete, clinical trials;
- our intentions and our ability to establish collaborations and/or partnerships;
- the timing or likelihood of regulatory filings and approvals for our product candidates;
- our commercialization, marketing and manufacturing capabilities and expectations;
- our intentions with respect to the commercialization of our product candidates;
- the pricing and reimbursement of our product candidates, if approved;
- the implementation of our business model and strategic plans for our business and product candidates, including additional indications for which we may pursue;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates, including the projected terms of patent protection;
- estimates of our expenses, future revenue, capital requirements, our needs for additional financing and our ability to obtain additional capital;
- our anticipated use of proceeds from this offering;
- our future financial performance; and
- developments and projections relating to our competitors and our industry, including competing products.

We have based these forward-looking statements largely on our current expectations, estimates, forecasts and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. In light of the significant uncertainties in these forward-looking statements, you should not rely upon forward-looking statements as predictions of future events. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur at all. You should refer to

the section titled “Risk Factors” for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward- looking statements. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. Except as required by law, we undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise. The Private Securities Litigation Reform Act of 1995 and Section 27A of the Securities Act do not protect any forward-looking statements that we make in connection with this offering.

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 is a part, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in this prospectus by these cautionary statements.

MARKET AND INDUSTRY DATA

This prospectus contains estimates, projections and other information concerning our industry, our business, as well as data regarding market research, estimates and forecasts prepared by our management. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances that are assumed in this information. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in the section titled “Risk Factors.” Unless otherwise expressly stated, we obtained this industry, business, market and other data from reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources. In some cases, we do not expressly refer to the sources from which this data is derived. In that regard, when we refer to one or more sources of this type of data in any paragraph, you should assume that other data of this type appearing in the same paragraph is derived from the same sources, unless otherwise expressly stated or the context otherwise requires.

USE OF PROCEEDS

We estimate that the net proceeds to us from this offering will be approximately $ million (or approximately $ million if the underwriters exercise in full their option to purchase up to additional shares of common stock), based on 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.

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

The principal purposes of this offering are to obtain additional capital to support our operations, to create a public market for our common stock and to facilitate our future access to the public markets. We currently intend to use the net proceeds from this offering, together with our existing cash and cash equivalents, as follows:

- approximately $ million to $ million to fund the Phase 2 and drug-drug interaction, or DDI, clinical trials of ANX005 in Guillain-Barré Syndrome, or GBS, and Good Manufacturing Practices, or GMP, manufacturing activities for ANX005;
- approximately $ million to $ million to fund the Phase 2a clinical trials of ANX005 in Huntington's disease, or HD, and amyotrophic lateral sclerosis, or ALS, and the Phase 2 clinical trial of ANX005 in warm autoimmune hemolytic anemia, or wAIHA;
- approximately $ million to $ million to fund the preparation for Phase 2 clinical development of ANX007 in geographic atrophy, or GA, and GMP manufacturing activities for ANX007;
- approximately $ million to $ million to advance our earlier-stage programs, including ANX009, and fund certain other research and development activities; and
- the remainder for working capital and other general corporate purposes.

Based upon our current operating plan, we believe that the anticipated net proceeds from this offering, together with our existing cash and cash equivalents, will enable us to fund our operating expenses and capital expenditure requirements for at least the next months from the date of this offering. In particular, we expect that the net proceeds from this offering, together with our existing cash and cash equivalents, will allow us to complete our planned DDI clinical trials and Phase 2 trial of ANX005 in GBS, complete our planned Phase 2a trials of ANX005 in both HD and ALS, and prepare for a Phase 2 trial of ANX007 in GA.

This expected use of the 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. Further, due to the uncertainties inherent in the drug development process, it is difficult to estimate with certainty the exact amounts of the net proceeds from this offering that may be used for the above purposes. We may also use a portion of the remaining net proceeds and our existing cash and cash equivalents to in-license, acquire or invest in complementary businesses, technologies, products or assets. However, we have no current commitments or obligations to do so.

Our management will have broad discretion over the use of the net proceeds from this offering, and our investors will be relying on the judgment of our management regarding the application of the net proceeds of this

offering. The amounts and timing of our expenditures will depend upon numerous factors including the results of our research and development efforts, the timing and success of our preclinical studies and ongoing clinical trials or clinical trials we may commence in the future, the timing of regulatory submissions, the amount of cash obtained through any future collaborations and other factors described in the section titled “Risk Factors.”

The expected net proceeds from this offering will not be sufficient for us to fund any of our product candidates through regulatory approval, and we will need to raise additional capital to complete the development and commercialization of our product candidates. We expect to finance our cash needs through a combination of equity offerings, debt financings and potential collaborations, and license and development agreements. We have based these estimates on assumptions that may prove to be incorrect, and we could expend our available capital resources at a rate greater than we currently expect.

Pending the use of the net proceeds from this offering as described above, we intend to invest the net proceeds in a variety of capital preservation instruments, including short-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock, and we do not currently intend to pay any cash dividends on our capital stock in the foreseeable future. We currently intend to retain all available funds and any future earnings to fund the development and expansion 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 will depend upon, among other factors, our results of operations, financial condition, contractual restrictions and capital requirements. In addition, our ability to pay cash dividends on our capital stock may be limited by the terms of any future debt or preferred securities we issue or any credit facilities we enter into.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and our capitalization as of June 30, 2019 on:

- an actual basis;
- a pro forma basis, to reflect: (i) the sale and issuance of 22,222,217 shares of our Series C redeemable convertible preferred stock for aggregate gross proceeds of approximately $30.0 million on August 30, 2019 in satisfaction of the second tranche of our Series C financing; (ii) the conversion of all of our outstanding shares of redeemable convertible preferred stock into 111,748,065 shares of our common stock, which will occur immediately prior to the completion of this offering; (iii) the reclassification of the redeemable convertible preferred stock liability to additional paid-in capital as the obligation to issue additional shares of our Series C redeemable convertible preferred stock is satisfied in connection with the closing of the second tranche of our Series C financing; and (iv) the filing and effectiveness of our amended and restated certificate of incorporation in Delaware, which will be in effect immediately prior to the completion of this offering; and
- a pro forma as adjusted basis, to reflect (i) the pro forma adjustments set forth above; and (ii) the sale of shares of our 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 estimated underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this table together with the sections titled "Selected Consolidated Financial Data," "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. The pro forma 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.

	As of June 30, 2019		
	Actual	Pro Forma	Pro Forma As Adjusted(1)
		(unaudited)	
	(in thousands, except share and per share amounts)		
Cash and cash equivalents	$ 31,451	$	$
Redeemable convertible preferred stock liability	$ 9,470	$	$
Redeemable convertible preferred stock, $0.001 par value, per share; 119,155,472 shares authorized, 89,525,848 issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	102,616		
Stockholders' (deficit) equity:			
Preferred stock, $0.001 par value, no shares authorized, issued and outstanding, actual; shares authorized, no shares issued and outstanding, pro forma and pro forma as adjusted	—		
Common stock, $0.001 par value per share; 150,000,000 shares authorized, 3,821,386 shares issued and outstanding, actual; shares authorized and 115,569,451 shares issued and outstanding, pro forma; shares authorized and shares issued and outstanding, pro forma as adjusted	4		
Additional paid-in capital	1,629		
Accumulated other comprehensive loss	(76)		
Accumulated deficit	(83,450)		
Total stockholders' (deficit) equity	(81,893)		
Total capitalization	$ 30,193	$	$

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

The number of shares of our common stock issued and outstanding, pro forma and pro forma as adjusted, in the table above is based on shares of common stock outstanding as of June 30, 2019 (including the sale and issuance of 22,222,217 shares of our Series C redeemable convertible preferred stock on August 30, 2019 in satisfaction of the second tranche of our Series C financing and the subsequent conversion of all of our outstanding shares of redeemable convertible preferred stock into 111,748,065 shares of our common stock) and excludes:

- 18,588,587 shares of our common stock issuable upon the exercise of outstanding stock options as of June 30, 2019, with a weighted-average exercise price of $0.54 per share;
- shares of our common stock issuable upon the exercise of outstanding stock options granted subsequent to June 30, 2019, with a weighted-average exercise price of $ per share;

- shares of our common stock reserved for future issuance under the 2020 Plan, which will become effective immediately prior to the execution of the underwriting agreement related to this offering, as well as any future increases in the number of shares of common stock reserved for issuance under the 2020 Plan; and
- shares of our common stock reserved for future issuance under the ESPP, which will become effective immediately prior to the execution of the underwriting agreement related to this offering, as well as any future increases in the number of shares of common stock reserved for issuance under the ESPP.

DILUTION

If you invest in our common stock in this offering, your ownership interest will be diluted to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock after this offering.

Our historical net tangible book value (deficit) as of June 30, 2019 was $(81.9) million, or $(21.43) per share of our common stock. Our historical net tangible book value (deficit) represents our total tangible assets less total liabilities and redeemable convertible preferred stock. Historical net tangible book value (deficit) per share is our historical net tangible book value (deficit) divided by the number of shares of our common stock outstanding as of June 30, 2019.

Our pro forma net tangible book value as of June 30, 2019 was $ million, or $ per share of our common stock, based on the total number of shares of our common stock outstanding as of June 30, 2019. Pro forma net tangible book value per share represents our total tangible assets less our total liabilities, divided by the number of outstanding shares of common stock, after giving effect to: (i) the sale and issuance of 22,222,217 shares of our Series C redeemable convertible preferred stock for aggregate gross proceeds of approximately $30.0 million on August 30, 2019 in satisfaction of the second tranche of our Series C financing and (ii) the conversion of all of the outstanding shares of redeemable convertible preferred stock into an aggregate of 111,748,065 shares of common stock.

After giving 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 estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of June 30, 2019 would have been $ million, or $ per share. This represents an immediate increase in pro forma as adjusted net tangible book value of $ per share to our existing stockholders and an immediate dilution of $ per share to new investors participating in this offering.

The following table illustrates this dilution on a per share basis:

Assumed initial public offering price per share		$
Historical net tangible book value (deficit) per share as of June 30, 2019	$(21.43)	
Pro forma increase in net tangible book value per share as of June 30, 2019 attributable to the pro forma transactions described above		
Pro forma net tangible book value per share as of June 30, 2019		
Increase in pro forma net tangible book value per share attributable to new investors participating in this offering		
Pro forma as adjusted net tangible book value per share after this offering		
Dilution per share to new investors participating in this offering		$

Each $1.00 increase or 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 or decrease, as applicable, our pro forma as adjusted net tangible book value per share after this offering by $ per share and the dilution per share to new investors participating in this offering by $ per share, assuming that the number of shares of common stock offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, an increase of 1.0 million in the number of shares of common stock offered by us would increase the pro forma as adjusted net tangible book value after this offering by $ per share and decrease the dilution per

share to new investors participating in this offering by $ per share, and a decrease of 1.0 million shares of common stock offered by us would decrease the pro forma as adjusted net tangible book value by $ per share, and increase the dilution per share to new investors in this offering by $ per share, assuming that the assumed initial public offering price of $ per share remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters exercise in full their option to purchase additional shares of common stock from us, the pro forma as adjusted net tangible book value per share after giving effect to this offering would be $ per share, representing an immediate increase to existing stockholders of $ per share, and dilution to new investors participating in this offering of $ per share.

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

	Shares Purchased		Total Consideration		Weighted-Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders		%	$	%	$
New investors					$
Total		100%	$	100%	

A $1.00 increase or 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 or decrease, as applicable, the total consideration paid by new investors by $ million and, in the case of an increase, would increase the percentage of total consideration paid by new investors to % and, in the case of a decrease, would decrease the percentage of total consideration paid by new investors to %, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. Similarly, an increase or decrease of 1.0 million shares in the number of shares offered by us would increase or decrease, as applicable, the total consideration paid by new investors by $ million and, in the case of an increase, would increase the percentage of total consideration paid by new investors to % and, in the case of a decrease, would decrease the percentage of total consideration paid by new investors to %, assuming that the assumed initial public offering price of $ per share remains the same.

If the underwriters exercise their option to purchase additional shares in full, our existing stockholders would own % and our new investors would own % of the total number of shares of our common stock outstanding upon the completion of this offering.

The number of shares of our common stock issued and outstanding, pro forma and pro forma as adjusted, in the table above is based on 115,569,451 shares of common stock outstanding as of June 30, 2019 (including the sale and issuance of 22,222,217 shares of our Series C redeemable convertible preferred stock on August 30, 2019 in satisfaction of the second tranche of our Series C financing and the subsequent conversion of all of our outstanding shares of redeemable convertible preferred stock into 111,748,065 shares of our common stock) and excludes:

- 18,588,587 shares of our common stock issuable upon the exercise of outstanding stock options as of June 30, 2019, with a weighted-average exercise price of $0.54 per share;
- shares of our common stock issuable upon the exercise of outstanding stock options granted subsequent to June 30, 2019, with a weighted-average exercise price of $ per share;

- shares of our common stock reserved for future issuance under the 2020 Plan, which will become effective immediately prior to the execution of the underwriting agreement related to this offering, as well as any future increases in the number of shares of common stock reserved for issuance under our 2020 Plan; and
- shares of our common stock reserved for future issuance under the ESPP, which will become effective immediately prior to the execution of the underwriting agreement related to this offering, as well as any future increases in the number of shares of common stock reserved for issuance under the ESPP.

To the extent that any outstanding options are exercised, new options or other equity awards are issued under our equity incentive plans, or we issue additional shares in the future, there will be further dilution to new investors participating in this offering.

SELECTED CONSOLIDATED FINANCIAL DATA

The following tables set forth our selected consolidated statements of operations and consolidated balance sheet data. The selected consolidated statements of operations data for the years ended December 31, 2017 and 2018 and the selected consolidated balance sheet data as of December 31, 2017 and 2018 are derived from our audited consolidated financial statements appearing elsewhere in this prospectus. The selected consolidated statements of operations data for the six months ended June 30, 2018 and 2019 and the selected consolidated balance sheet data as of June 30, 2019 are derived from our unaudited interim condensed consolidated financial statements included elsewhere in this prospectus. The unaudited interim condensed consolidated financial statements were prepared on a basis consistent with our audited consolidated financial statements and include, in management's opinion, all adjustments, consisting only of normal recurring adjustments that we consider necessary for a fair presentation of the financial information set forth in those statements. Our historical results are not necessarily indicative of the results that may be expected for any period in the future and our interim results are not necessarily indicative of our expected results for the year ending December 31, 2019. You should read the following selected consolidated financial data together with the section titled "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. The selected consolidated financial data included in this section are not intended to replace the consolidated financial statements and are qualified in their entirety by the consolidated financial statements and the related notes included elsewhere in this prospectus.

	Year Ended December 31,		Six Months Ended June 30,	
	2017	2018	2018	2019
			(unaudited)	
	(in thousands, except share and per share data)			
Consolidated Statements of Operations Data:				
Operating expenses:				
Research and development	$ 17,853	$ 15,528	$ 7,774	$ 10,640
General and administrative	2,624	3,619	1,760	3,679
Total operating expenses	20,477	19,147	9,534	14,319
Loss from operations	(20,477)	(19,147)	(9,534)	(14,319)
Gain (loss) on remeasurement of redeemable convertible preferred stock liability	—	260	—	(4,330)
Other income, net	1,770	584	60	597
Net loss before taxes	(18,707)	(18,303)	(9,474)	(18,052)
Provision for income taxes	1	1	1	1
Net loss	(18,708)	(18,304)	(9,475)	(18,053)
Accretion on redeemable convertible preferred stock	87	176	50	534
Net loss attributable to common stockholders	$ (18,795)	$ (18,480)	$ (9,525)	$ (18,587)
Net loss per share attributable to common stockholders, basic and diluted(1)	$ (6.16)	$ (5.21)	$ (2.90)	$ (4.86)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted(1)	3,051,792	3,548,177	3,283,337	3,821,386
Pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)(1)		$		$
Weighted-average shares used in computing pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)(1)				

(1) See Notes 2 and 11 to our audited consolidated financial statements and Notes 2 and 10 to our unaudited interim condensed consolidated financial statements included elsewhere in this prospectus for explanations of the calculations of our basic and diluted net loss per share, basic and diluted pro forma net loss per share and the weighted-average number of shares used in the computation of the per share amounts.

	As of December 31, 2017	As of December 31, 2018	As of June 30, 2019 (unaudited)
		(in thousands)	
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$ 2,966	$ 44,175	$ 31,451
Working capital(1)	1,977	42,380	29,578
Total assets	7,821	48,149	35,719
Redeemable convertible preferred stock liability	—	5,140	9,470
Redeemable convertible preferred stock	48,971	102,082	102,616
Accumulated deficit	(47,093)	(65,397)	(83,450)
Total stockholders' deficit	(46,211)	(64,202)	(81,893)

(1) We define working capital as current assets less current liabilities. See our audited consolidated financial statements and our unaudited interim condensed 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 our financial condition and results of operations together with our consolidated financial statements and the related notes included elsewhere in this prospectus. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business, includes forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in the "Risk Factors" section of this prospectus, our actual results could differ materially from the results described in or implied by these forward-looking statements.

Overview

We are a clinical-stage biopharmaceutical company developing a pipeline of novel therapies for patients with classical complement-mediated disorders of the body, eye and brain. Our pipeline is based on our platform technology addressing well-researched classical complement-mediated autoimmune and neurodegenerative disease processes, both of which are triggered by aberrant activation of C1q, the initiating molecule of the classical complement pathway. Evidence suggests that potent and selective inhibition of C1q can prevent tissue damage triggered in antibody-mediated autoimmune disease and preserve loss of functioning synapses associated with cognitive and functional decline in complement-mediated neurodegeneration. Our upstream complement approach targeting C1q acts as an "on/off switch" designed to block all downstream components of the classical complement pathway that lead to excess inflammation, tissue damage and patient disability in a host of complement-mediated disorders, while preserving the normal immune function of the lectin and alternative complement pathways involved in the clearance of pathogens and damaged cells.

Our pipeline of product candidates is designed to block the activity of C1q and the entire classical complement pathway in a broad set of complement-mediated diseases. Our first product candidate, ANX005, is a full-length monoclonal antibody formulated for intravenous administration in autoimmune disorders. Our second product candidate, ANX007, is an antigen-binding fragment, or Fab, formulated for intravitreal administration for the treatment of neurodegenerative ophthalmic disorders. We are also developing ANX009, an investigational, subcutaneous formulation designed for the treatment of systemic autoimmune diseases. We have completed Phase 1b clinical trials for ANX005 and ANX007 in patients with Guillain-Barré Syndrome, or GBS, and glaucoma, respectively. Both molecules were well-tolerated and showed full inhibition of C1q and the classical complement pathway.

Based on learnings from our initial trials, we are advancing our current programs while expanding into additional orphan and large market indications. In particular, we intend to advance ANX005 into multiple Phase 2 trials in 2020 including in patients with GBS, Huntington's disease, amyotrophic lateral sclerosis and warm autoimmune hemolytic anemia. We are also planning a Phase 2 trial of ANX007 in patients with geographic atrophy in 2020. Additionally, we are developing novel product candidates designed to inhibit C1q and other components of the early classical complement cascade with the goal of further broadening our portfolio. Finally, we are leveraging our disciplined development strategy in early clinical trials utilizing established biomarkers in an effort to enhance patient selection, measure target engagement and assess our product candidates' potential to meaningfully impact the disease process and improve the probability of technical success over shorter development timelines.

We hold worldwide development and commercialization rights to all of our product candidates, which allow us to strategically maximize value from our patent portfolio over time. Our patent portfolio includes patent protection for our upstream complement platform and each of our product candidates.

We were incorporated in March 2011 and commenced operations later that year. To date, we have focused primarily on performing research and development activities, hiring personnel and raising capital to support and

expand these activities. We do not have any products approved for sale, and we have not generated any revenue from product sales. We have incurred net losses each year since our inception. Our net losses were $18.7 million and $18.3 million for the years ended December 31, 2017 and 2018, respectively, and $9.5 million and $18.1 million for the six months ended June 30, 2018 and 2019, respectively. As of June 30, 2019, we had an accumulated deficit of $83.5 million and cash and cash equivalents of $31.5 million. We expect to incur significant and increasing losses in the foreseeable future as we continue to invest in research and development activities related to developing our product candidates, particularly as they advance into later stages of development and as we conduct larger clinical trials, engage in other research and development activities, seek regulatory approvals for any product candidates that successfully complete clinical trials, prepare for commercialization, hire additional personnel, protect our intellectual property and incur additional expenses as a result of operating as a public company. We also expect to increase the size of our administrative function to support the growth of our business. Our net losses may fluctuate significantly from quarter-to-quarter and year-to-year, depending on a variety of factors, including: the timing and cost of, and level of investment in, research and development; the number and timing of the clinical trials we commence; the cost of manufacturing our product candidates; the timing and cost of commercialization activities relating to our product candidates, if approved; and expenditures that we may incur to acquire, develop or commercialize additional product candidates and technologies.

We have funded our operations to date primarily from the issuance and sale of equity securities. From our inception through August 30, 2019, we have raised aggregate net cash proceeds of $137.2 million from the sale of our equity securities. We do not expect to generate revenue from any product candidates that we develop until we obtain regulatory approval for one or more of such product candidates and commercialize our products or enter into collaboration agreements with third parties. Until such time as we can generate significant revenue from sales of our product candidates, if ever, we expect to finance our operations through public or private equity offerings or debt financings, credit or loan facilities, collaborations or a combination of one or more of these funding sources. As a result, we will need to raise additional capital. Additional funds may not be available to us on acceptable terms or at all. If we fail to obtain necessary capital when needed on acceptable terms, or at all, it could force us to delay, limit, reduce or terminate our product development programs, commercialization efforts or other operations. Based upon our current operating plan, we believe that the net proceeds from this offering, together with our existing cash and cash equivalents, will enable us to fund our operating expenses and capital expenditure requirements for at least the next months from the date of this offering.

Components of Operating Results

Revenue

Our product candidates are not approved for commercial sale. We have not generated any revenue from sales of our product candidates and do not expect to do so in the foreseeable future and until we complete clinical development, submit regulatory filings and receive approvals from applicable regulatory bodies for such product candidates, if ever.

Operating Expenses

Research and Development

Research and development expenses account for a significant portion of our operating expenses. Research and development expenses consist primarily of direct and indirect costs incurred for the development of our product candidates.

Direct expenses include:

- preclinical and clinical outside service costs associated with discovery, preclinical and clinical testing of our product candidates;

- professional services agreements with third party contract organizations, investigative clinical trial sites and consultants that conduct research and development activities on our behalf;
- contract manufacturing costs to produce clinical trial materials; and
- laboratory supplies and materials.

Indirect expenses include:

- compensation and personnel-related expenses (including stock-based compensation);
- allocated expenses for facilities and depreciation; and
- other indirect costs.

We record research and development expenses as incurred. Payments made to other entities are under agreements that are generally cancelable by us. Advance payments for goods or services to be received in future periods for use in research and development activities are deferred as prepaid expenses. The prepaid amounts are then expensed as the related services are performed. At this time, we cannot reasonably estimate or know the nature, timing and estimated costs of the efforts that will be necessary to complete the development of, and obtain regulatory approval for, any of our product candidates.

We expect our research and development expenses to increase substantially for the foreseeable future as we continue to invest in research and development activities related to developing our product candidates, particularly as they advance into later stages of development and as we conduct larger clinical trials, engage in other research and development activities and seek regulatory approvals for any product candidates that successfully complete clinical trials and as we incur expenses associated with hiring additional personnel to support our research and development efforts. The process of conducting the necessary clinical research to obtain regulatory approval is costly and time-consuming, and the successful development of our product candidates is highly uncertain.

General and Administrative

General and administrative expenses consist primarily of compensation and personnel-related expenses (including stock-based compensation) for our personnel in executive, finance and other administrative functions. General and administrative expenses also include professional fees paid for accounting, legal and tax services, allocated expenses for facilities and depreciation and other general and administrative costs.

We expect our general and administrative expenses to increase substantially for the foreseeable future as we continue to support our research and development activities, grow our business and, if any of our product candidates receive marketing approval, commercialization activities. We will also incur additional expenses as a result of operating as a public company, including expenses related to compliance with the rules and regulations of the SEC, Sarbanes-Oxley Act and the Nasdaq Stock Market, additional insurance expenses, investor relations activities and other administrative and professional services. We also expect to increase the size of our administrative function to support the growth of our business.

Gain (Loss) on Remeasurement of Redeemable Convertible Preferred Stock Liability

Gain (loss) on remeasurement of redeemable convertible preferred stock liability consists of gains and losses from the remeasurement to fair value of the redeemable convertible preferred stock liability related to our Series C redeemable convertible preferred stock. We remeasured the liability each reporting period until the second closing of our Series C redeemable convertible preferred stock which occurred in August 2019.

Other Income, Net

Other income, net, primarily consists of non-recurring income from research grants and interest income earned on our cash equivalents.

Results of Operations

Comparison of the Six Months Ended June 30, 2018 and 2019

The following tables summarize our results of operations for the periods presented.

	Six Months Ended June 30,		Dollar Change	% Change
	2018	2019		
	(unaudited) (in thousands)			
Operating expenses:				
Research and development	$ 7,774	$ 10,640	$ 2,866	37
General and administrative	1,760	3,679	1,919	109
Total operating expenses	9,534	14,319	4,785	50
Loss from operations	(9,534)	(14,319)	(4,785)	50
Loss on remeasurement of redeemable convertible preferred stock liability	—	(4,330)	(4,330)	*
Other income, net	60	597	537	*
Net loss before taxes	(9,474)	(18,052)	(8,578)	91
Provision for income taxes	1	1	—	*
Net loss	$ (9,475)	$(18,053)	$ (8,578)	91

* *Not meaningful*

Research and Development Expenses

	Six Months Ended June 30,		Dollar Change	% Change
	2018	2019		
	(unaudited) (in thousands)			
Direct costs:				
Preclinical and clinical outside services	$ 3,443	$ 5,137	$ 1,694	49
Professional services	1,279	839	(440)	(34)
Contract manufacturing	855	1,751	896	105
Laboratory supplies and materials	109	281	172	*
Indirect costs:				
Compensation and personnel-related (including stock-based compensation)	1,657	2,190	533	32
Facilities and depreciation	417	412	(5)	(1)
Other	14	30	16	*
Total research and development expenses	$ 7,774	$ 10,640	$ 2,866	37

* *Not meaningful*

Research and development expenses increased by $2.8 million, or 37%, from $7.8 million for the six months ended June 30, 2018 to $10.6 million for the six months ended June 30, 2019. The increase was primarily due to an increase of $1.7 million in direct preclinical and clinical outside services related to increased activities of our ongoing clinical trials. Contract manufacturing expenses increased by $0.9 million primarily due to the scale up of manufacturing to support continued advancement of our product candidates through clinical trials. Direct professional services costs decreased by $0.4 million due to an increase in internal research and development capabilities during the six months ended June 30, 2019.

Compensation and personnel-related expenses increased by $0.5 million due to an increase in headcount and related employee costs.

General and Administrative Expenses

	Six Months Ended June 30,		Dollar Change	% Change
	2018	2019		
	(unaudited) (in thousands)			
Compensation and personnel-related (including stock-based compensation)	$ 831	$1,512	$ 681	82
Professional services	694	1,906	1,212	*
Facilities and depreciation	196	189	(7)	*
Other	39	72	33	85
Total general and administrative expenses	$1,760	$3,679	$1,919	109

* *Not meaningful*

General and administrative expenses increased by $1.9 million, or 109%, from $1.8 million for the six months ended June 30, 2018 to $3.7 million for the six months ended June 30, 2019. The increase was primarily due to an increase of $1.2 million in professional services for accounting, legal and tax service fees, and an increase of $0.7 million in compensation and personnel-related expenses primarily related to an increase of $0.5 million in stock-based compensation expense resulting from new option grants and an increase in headcount.

Loss on Remeasurement of Redeemable Convertible Preferred Stock Liability

For the six months ended June 30, 2019, we recorded a loss on remeasurement of redeemable convertible preferred stock liability of $4.3 million related to the change in fair value of the liability. The liability was recognized in connection with the initial closing of our Series C redeemable convertible preferred stock financing in December 2018.

Other Income, Net

Other income, net, increased by $0.5 million from $0.1 million for the six months ended June 30, 2018 to $0.6 million for the six months ended June 30, 2019. The increase was primarily due to an increase of $0.4 million in interest income from increased investments in money market funds resulting from the Series C redeemable convertible preferred stock financing in December 2018.

Comparison of the Years Ended December 31, 2017 and 2018

The following tables summarize our results of operations for the periods presented.

	Year Ended December 31,		Dollar Change	% Change
	2017	2018		
	(in thousands)			
Operating expenses:				
Research and development	$ 17,853	$ 15,528	$(2,325)	(13)
General and administrative	2,624	3,619	995	38
Total operating expenses	20,477	19,147	(1,330)	(6)
Loss from operations	(20,477)	(19,147)	1,330	(6)
Gain on remeasurement of redeemable convertible preferred stock liability	—	260	260	*
Other income, net	1,770	584	(1,186)	(67)
Net loss before taxes	(18,707)	(18,303)	404	(2)
Provision for income taxes	1	1	—	—
Net loss	$(18,708)	$(18,304)	$ 404	(2)

* *Not meaningful*

Research and Development Expenses

	Year Ended December 31,		Dollar Change	% Change
	2017	2018		
	(in thousands)			
Direct costs:				
Preclinical and clinical outside services	$ 6,480	$ 7,235	$ 755	12
Professional services	2,377	2,294	(83)	(3)
Contract manufacturing	4,513	1,433	(3,080)	(68)
Laboratory supplies and materials	690	259	(431)	(62)
Indirect costs:				
Compensation and personnel-related (including stock-based compensation)	3,012	3,455	443	15
Facilities and depreciation	769	823	54	7
Other	12	29	17	*
Total research and development expenses	$17,853	$15,528	$(2,325)	(13)

* *Not meaningful*

Research and development expenses decreased by $2.3 million, or 13%, from $17.9 million for the year ended December 31, 2017 to $15.5 million for the year ended December 31, 2018. The decrease was primarily due to the decrease of $3.1 million in contract manufacturing costs as the manufacturing validation process for our clinical candidates was substantially completed during 2017 and a decrease of $0.4 million in laboratory supplies and materials. Preclinical and clinical outside services increased by $0.8 million primarily due to increased activities associated with our ongoing clinical trials in 2018. Compensation and personnel-related expenses increased by $0.4 million due to an increase in headcount.

General and Administrative Expenses

	Year Ended December 31,		Dollar Change	% Change
	2017	2018		
	(in thousands)			
Compensation and personnel-related (including stock-based compensation)	$ 964	$1,682	$ 718	74
Professional services	1,334	1,470	136	10
Facilities and depreciation	232	391	159	69
Other	94	76	(18)	(19)
Total general and administrative expenses	$2,624	$3,619	$ 995	38

General and administrative expenses increased by $1.0 million, or 38%, from $2.6 million for the year ended December 31, 2017 to $3.6 million for the year ended December 31, 2018. The increase was primarily due to an increase of $0.7 million in compensation and personnel-related expenses due to an increase in headcount, an increase of $0.2 million in depreciation expense related to new leasehold improvements in December 2017 and an increase of $0.1 million in consulting expenses.

Gain on Remeasurement of Redeemable Convertible Preferred Stock Liability

For the year ended December 31, 2018, we recorded a gain on remeasurement of redeemable convertible preferred stock liability of $0.3 million related to the change in fair value of the liability. The liability was recognized in connection with the initial closing of our Series C redeemable convertible preferred stock financing in December 2018.

Other Income, Net

Other income, net, decreased by $1.2 million, or 67%, from $1.8 million for the year ended December 31, 2017 to $0.6 million for the year ended December 31, 2018. The decrease was primarily attributable to the decrease of $1.4 million in non-recurring income from research and development grants in 2018.

Liquidity and Capital Resources

Sources of Liquidity

Due to our significant research and development expenditures, we have generated operating losses since our inception. We have funded our operations primarily through the sale of equity securities. From our inception through June 30, 2019, we have raised aggregate net cash proceeds of $107.3 million from the sale of our equity securities. As of June 30, 2019, we had available cash and cash equivalents of $31.5 million and an accumulated deficit of $83.5 million.

Historical Cash Flows

	Year Ended December 31,		Six Months Ended June 30,	
	2017	2018	2018	2019
	(in thousands)		(unaudited)	
Cash used in operating activities	$(19,260)	$(17,190)	$ (9,039)	$(12,699)
Cash used in investing activities	(567)	(17)	(17)	(18)
Cash provided by financing activities	42	58,456	13,673	3
Net (decrease) increase in cash and cash equivalents	$(19,785)	$ 41,249	$ 4,617	$(12,714)

Cash Flows from Operating Activities

Cash used in operating activities for the six months ended June 30, 2019 was $12.7 million, which consisted of a net loss of $18.1 million and a net change of $0.1 million in our net operating assets and liabilities, partially offset by $5.5 million in non-cash charges. The non-cash changes consisted of the loss on remeasurement of the redeemable convertible preferred stock liability of $4.3 million, stock-based compensation of $0.9 million and depreciation and amortization of $0.3 million. The net change in our operating assets and liabilities was primarily due to an increase of $0.9 million in accounts payable as a result of the increase in our clinical and manufacturing activities, partially offset by an increase of $0.5 million in prepaid expenses and other current assets primarily related to prepayments for our clinical activities and a decrease of $0.3 million in accrued liabilities primarily due to the payout of accrued bonuses in the first quarter of 2019.

Cash used in operating activities for the six months ended June 30, 2018 was $9.0 million, which consisted of a net loss of $9.5 million, partially offset by $0.5 million in non-cash charges. The non-cash changes consisted of depreciation and amortization of $0.3 million and stock-based compensation of $0.2 million. The net change in our operating assets and liabilities was primarily due to a decrease of $0.7 million in prepaid expenses and other current assets primarily related to prepayments for our clinical activities and the decrease in government grants received related to research and development activities, partially offset by a decrease of $0.6 million in accounts payable and accrued liabilities primarily due to the decrease in contract manufacturing activities and a decrease of $0.1 million in deferred rent due to the amortization of deferred rent balance.

Cash used in operating activities for the year ended December 31, 2018 was $17.2 million, which consisted of a net loss of $18.3 million, partially offset by $0.6 million in non-cash charges and a net change of $0.5 million in our net operating assets and liabilities. The non-cash charges consisted of depreciation and amortization of $0.5 million and stock-based compensation of $0.4 million, partially offset by the gain on remeasurement of redeemable convertible preferred stock liability of $0.3 million. The net change in our operating assets and liabilities was primarily due to an increase of $0.6 million in accrued liabilities due to timing of invoices and a decrease of $0.4 million in prepaid expenses and other current assets due to the decrease in payments for clinical activities and the decrease in government grants received related to research and development activities. This was partially offset by a decrease of $0.3 million in deferred rent related to the amortization of deferred rent balance and a decrease of $0.3 million in accounts payable due to the decrease in research and development activities from our Australian subsidiary.

Cash used in operating activities for the year ended December 31, 2017 was $19.3 million, which consisted of a net loss of $18.7 million and a net change of $1.3 million in our net operating assets and liabilities, partially offset by $0.7 million in non-cash charges. The non-cash charges consisted of stock-based compensation of $0.4 million and depreciation and amortization of $0.3 million. The net change in our operating assets and liabilities was primarily due to an increase of $1.6 million in prepaid expenses and other current assets related to payments for clinical activities, partially offset by a decrease of $0.3 million in accounts payable and accrued liabilities due to timing of payments.

Cash Flows from Investing Activities

Cash used in investing activities for the six months ended June 30, 2018 and 2019 was $17,000 and $18,000, respectively, related to purchases of property and equipment.

Cash used in investing activities for the years ended December 31, 2017 and 2018 was $0.6 million and $17,000, respectively, related to purchases of property and equipment.

Cash Flows from Financing Activities

Cash provided by financing activities for the six months ended June 30, 2019 was $3,000 related to proceeds from the exercise of stock options.

Cash provided by financing activities for the six months ended June 30, 2018 was $13.7 million which consisted of net proceeds received from the issuance of our redeemable convertible preferred stock of $13.6 million and proceeds from the exercise of stock options of $0.1 million.

Cash provided by financing activities for the year ended December 31, 2018 was $58.5 million which consisted of net proceeds received from the issuance of our redeemable convertible preferred stock of $58.3 million and proceeds from the exercise of stock options of $0.1 million.

Cash provided by financing activities for the year ended December 31, 2017 was $42,000 which primarily consisted of proceeds from the exercise of stock options.

Funding Requirements

We use our cash to fund operations, primarily to fund our clinical trials, research and development expenditures and related personnel costs. We expect our research and development expenses to increase substantially for the foreseeable future as we continue to invest in research and development activities related to our product candidates, particularly as they advance into later stages of development and as we conduct larger clinical trials, engage in other research and development activities, seek regulatory approvals for any product candidates that successfully complete clinical trials and as we incur expenses associated with hiring additional personnel to support our research and development efforts. In addition, we expect our general and administrative expenses to increase substantially for the foreseeable future as we continue to support our research and development activities and to grow our business and as we expect to engage in commercialization activities, if any of our product candidates receive marketing approval. We will also incur additional expenses as a result of operating as a public company and also expect to increase the size of our administrative function to support the growth of our business. The timing and amount of our operating expenditures will depend on many factors, including:

- the scope, progress, results and costs of researching and developing our current product candidates or any other future products candidates we choose to pursue, and conducting preclinical studies and clinical trials, including our planned Phase 2 clinical trials of ANX005 and ANX007;
- the timing of, and the costs involved in, obtaining regulatory approvals for our lead product candidates or any future product candidates;
- the number and characteristics of any additional product candidates we develop or acquire;
- the timing and amount of any milestone, royalty and/or other payments we are required to make pursuant to our current or any future license or collaboration agreements;
- the cost of manufacturing our lead product candidates or any future product candidates and any products we successfully commercialize;
- the cost of building a sales force in anticipation of product commercialization;
- the cost of commercialization activities of our product candidates, if approved for sale, including marketing, sales and distribution costs;
- our ability to establish strategic collaborations, licensing or other arrangements and the financial terms of any such agreements, including the timing and amount of any future milestone, royalty or other payments due under any such agreement;
- any product liability or other lawsuits related to our products;
- the expenses needed to attract, hire and retain skilled personnel;
- the costs associated with operating as a public company;

- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing our intellectual property portfolio; and
- the timing, receipt and amount of sales of any future approved products.

During the third quarter of 2019, we achieved the defined milestones triggering the obligation of investors to fund the second closing of our Series C redeemable convertible preferred stock and in August 2019, we issued 22,222,217 shares of our Series C redeemable convertible preferred stock for net proceeds of $29.9 million. Without giving effect to the anticipated net proceeds from this offering, we believe that our existing cash and cash equivalents and the proceeds from the second closing of our Series C financing will enable us to fund our operating expenses and capital expenditure requirements for at least the next 12 months.

Based upon our current operating plan, we believe that the net proceeds from this offering, together with our existing cash and cash equivalents, will enable us to fund our operating expenses and capital expenditure requirements for at least the next months from the date of this offering. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we expect. We expect to continue to expend significant resources for the foreseeable future. Until such time, if ever, as we can generate substantial product revenue, we will be required to seek additional funding in the future and currently intend to do so through public or private equity offerings or debt financings, credit or loan facilities, collaborations or a combination of one or more of these funding sources. Additional funds may not be available to us on acceptable terms or at all. If we fail to obtain necessary capital when needed on acceptable terms, or at all, we could be forced to delay, limit, reduce or terminate our product development programs, commercialization efforts or other operations. If we raise additional funds by issuing equity securities, our stockholders will suffer dilution and the terms of any financing may adversely affect the rights of our stockholders. In addition, as a condition to providing additional funds to us, future investors may demand, and may be granted, rights superior to those of existing stockholders. Debt financing, if available, is likely to involve restrictive covenants limiting our flexibility in conducting future business activities, and, in the event of insolvency, debt holders would be repaid before holders of our equity securities received any distribution of our corporate assets.

Contractual Obligations and Other Commitments

The following table summarizes our contractual obligations and other commitments as of December 31, 2018:

	Payments Due by Period				
	Less than 1 Year	1 to 3 Years	3 to 5 Years	More than 5 Years	Total
	(in thousands)				
Operating lease obligations	$ 696	$1,463	$1,565	$ 361	$4,085
Total contractual obligations	$ 696	$1,463	$1,565	$ 361	$4,085

The obligations noted above represent operating lease obligations related to our currently occupied premises in South San Francisco, California. We also enter into contracts in the normal course of business with various third parties for preclinical studies, clinical trials and other services. These contracts generally provide for termination upon notice, and therefore we believe that our noncancelable obligations under these agreements are not material. These payments are not included in the table above. This table also does not include any milestone or royalty payments to third parties as the amounts, timing and likelihood of such payments are not known at this time.

Internal Control Over Financial Reporting

During the audit of our financial statements for the year ended December 31, 2018, a material weakness was identified in our internal control over financial reporting. Under standards established by the Public Company

Accounting Oversight Board, 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 our annual or interim financial statements will not be prevented or detected and corrected on a timely basis. The material weakness that was identified related to an inadequate number of qualified personnel within our accounting function, which impacted our ability to perform effective reviews over non-routine transactions.

We are implementing measures designed to improve our internal control over financial reporting to address the underlying causes of this material weakness, including the hiring of accounting personnel and establishing new accounting and financial reporting procedures, policies and processes to have in place an appropriate level of internal control over financial reporting.

We, and our independent registered public accounting firm, were not required to perform an evaluation of our internal control over financial reporting as of December 31, 2018 in accordance with the provisions of the Sarbanes-Oxley Act. Accordingly, we cannot assure you that we have identified all, or that we will not in the future have additional, material weaknesses. Material weaknesses may still exist when we report on the effectiveness of our internal control over financial reporting as required by reporting requirements under Section 404 of the Sarbanes-Oxley Act after the completion of this offering.

Off-Balance Sheet Arrangements

Since our inception, we have not engaged in any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

Critical Accounting Polices and Estimates

Our management's discussion and analysis of our financial condition and consolidated results of operations is based on our consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles, or GAAP. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, as well as the reported expenses incurred during the reporting periods. Our estimates are based on our 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 may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are described in the notes to our consolidated financial statements included elsewhere in this prospectus, we believe that the following critical accounting policies are most important to understanding and evaluating our reported financial results.

Accrued and Prepaid Research and Development Costs

We estimate preclinical study and clinical trial expenses based on the services performed pursuant to contracts with research institutions and clinical research organizations that conduct and manage preclinical studies and clinical trials on our behalf. In recording service fees as either prepaid or accrued costs, we estimate the period over which services will be performed and the level of effort to be expended in each period. These estimates of the expense are based on communications with and information provided by the third-party service providers at each balance sheet date. If the actual timing of the performance of services or the level of effort varies from the estimate, we will adjust the amounts recorded accordingly. The estimates are trued up to reflect the best information available at the time of the financial statement issuance. We have not experienced any material differences between accrued or prepaid costs and actual costs incurred since inception.

We defer and capitalize non-refundable advance payments for goods or services that will be used or rendered for future research and development activities as prepaid expenses until the related goods are delivered

or services are performed. We evaluate such payments for current or long-term classification based on when such services are expected to be received.

Prepaid research and development costs were $1.1 million, $1.1 million and $1.5 million as of December 31, 2017 and 2018, and June 30, 2019, respectively. Accrued research and development expenses were $0.6 million, $0.8 million and $0.4 million as of December 31, 2017 and 2018, and June 30, 2019, respectively.

Stock-Based Compensation

We maintain a stock-based compensation plan as a long-term incentive for employees, non-employee directors and consultants. The plan allows for the issuance of incentive stock options, non-qualified stock options, restricted stock units and other forms of equity awards.

We recognize stock-based compensation expense for stock options on a straight-line basis over the requisite service period and account for forfeitures as they occur. Our stock-based compensation costs are based upon the grant date fair value of options estimated using the Black-Scholes option pricing model. This model utilizes inputs which are highly subjective assumptions and generally require significant judgment. These assumptions include:

Fair Value of Common Stock—See the subsection titled "—Common Stock Valuations" below.

Expected Term—The expected term represents the period that the stock-based awards are expected to be outstanding and is determined using the simplified method (based on the mid-point between the vesting date and the end of the contractual term).

Expected Volatility—Because we have been privately held and do not have any trading history for our common stock, the expected volatility was estimated based on the average volatility for comparable publicly traded life sciences companies over a period equal to the expected term of the stock option grants. The comparable companies were chosen based on the similar size, stage in life cycle or area of specialty. We will continue to apply this process until a sufficient amount of historical information regarding the volatility of our own stock price becomes available.

Risk-Free Interest Rate—The risk-free interest rate is based on the U.S. Treasury zero coupon issues in effect at the time of grant for periods corresponding with the expected term of the option.

Dividend Yield—We have never paid dividends on our common stock and have no plans to pay dividends on our common stock. Therefore, we used an expected dividend yield of zero.

See Note 9 to our audited consolidated financial statements and Note 8 to our unaudited interim condensed consolidated financial statements included elsewhere in this prospectus for more information concerning certain of the specific assumptions we used in applying the Black-Scholes option pricing model to determine the estimated fair value of our stock options. Certain of such assumptions involve inherent uncertainties and the application of significant judgment. As a result, if factors or expected outcomes change and we use significantly different assumptions or estimates, our stock-based compensation could be materially different.

We recorded stock-based compensation expense of $0.4 million for each of the years ended December 31, 2017 and 2018. For the six months ended June 30, 2018 and 2019, we recorded stock-based compensation expense of $0.2 million and $0.9 million, respectively. As of June 30, 2019, we had $7.7 million of total unrecognized stock-based compensation cost which we expect to recognize over an estimated weighted-average period of 2.8 years. We expect to continue to grant stock options and other equity-based awards in the future, and to the extent that we do, our stock-based compensation expense recognized in future periods will likely increase.

The intrinsic value of all outstanding options as of June 30, 2019 was $ million based on an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus, of which approximately $ million is related to vested options and approximately $ million is related to unvested options.

Common Stock Valuations

Historically, for all periods prior to this offering, fair values of the shares of common stock underlying our share-based awards were estimated on each grant date by our board of directors. Our board of directors considered, among other things, valuations of our common stock which were prepared by an independent third-party valuation firm in accordance with the guidance provided by the American Institute of Certified Public Accountants 2013 Practice Aid, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*.

For our valuations performed prior to December 31, 2018, we used the option pricing method, or OPM, backsolve method. In an OPM framework, the backsolve method for inferring the equity value implied by a recent financing transaction involves making assumptions for the expected time to liquidity, volatility and risk-free interest rate and then solving for the value of equity such that value for the most recent financing equals the amount paid. This method was selected as we concluded that the contemporaneous financing transaction was an arms-length transaction. Furthermore, as of the valuation dates prior to December 31, 2018, we were at an early stage of development and future liquidity events were difficult to forecast.

For our valuations performed subsequent to December 31, 2018, we used a Probability Weighted Expected Return Method, or PWERM, whereby our total equity value was estimated under various exit scenarios and allocated to our different classes of equity. The PWERM included two scenarios, initial public offering, or IPO, or staying private, that considered our estimate of the timing of each scenario and were weighted based on our estimate of the probability of each event occurring. The equity value under the IPO scenario was based on our estimate and recent IPO values of comparable companies. The OPM was utilized to estimate our equity value under the staying private scenario. The equity value under all scenarios was reduced by a discount for lack of marketability.

Given the absence of a public trading market, our board of directors with input from management considered numerous objective and subjective factors to determine the fair value of common stock. The factors included, but were not limited to:

- contemporaneous valuations performed by an independent third-party valuation firm;
- important developments in our business;
- sales of our redeemable convertible preferred stock;
- the rights, preferences and privileges of our redeemable convertible preferred stock relative to those of our common stock;
- lack of marketability of our common stock as a private company;
- actual operating results;
- financial performance;
- the progress of clinical development;
- the likelihood of achieving a liquidity event for our securityholders, such as an IPO or a sale of our company, given prevailing market conditions;
- the trends, developments and conditions in the life sciences and biotechnology industry sectors;
- the economy in general; and
- the stock price performance and volatility of comparable public companies.

For valuations after the completion of this offering, the fair value of each share of underlying common stock will be based on the closing price of our common stock as reported on the date of grant on the primary stock exchange on which our common stock is traded.

Redeemable Convertible Preferred Stock Liability

The obligation to issue additional shares of Series C redeemable convertible preferred stock at a future date was determined to be a freestanding financial instrument that should be accounted for as a liability. At issuance, we recorded the redeemable convertible preferred stock liability on the balance sheet at its estimated fair value, using the Black-Scholes option pricing model, with an expected term based on the expected contractual closing date. The other inputs to the Black-Scholes option pricing model, including volatility and risk-free interest rate, were estimated using a similar methodology as described above for our stock option grants. This methodology was also used to remeasure the liability at December 31, 2018. During 2019, in light of our progress towards an IPO, the liability was remeasured using a PWERM. The PWERM included two scenarios, IPO or staying private, that were weighted based on our estimate of the probability of each event occurring.

The liability is subject to remeasurement at each balance sheet date, with changes in fair value recognized as in gain (loss) on remeasurement of redeemable convertible preferred stock liability in the statements of the operations. Upon settlement of the redeemable convertible preferred stock liability, which occurred in August 2019, we remeasured the liability and reclassified the final value to the carrying value of the Series C redeemable convertible preferred stock.

Income Taxes

We recognize deferred income taxes for temporary differences between the basis of assets and liabilities for financial statement and income tax purposes. In evaluating our valuation allowance, we consider all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax planning strategies and recent financial performance. Due to our lack of earnings history and uncertainties surrounding our ability to generate future taxable income, the net deferred tax assets have been fully offset by a valuation allowance. The deferred tax assets were primarily comprised of federal and state tax net operating losses and tax credit carryforwards.

At December 31, 2018, we had $60.8 million of federal and $36.6 million of state net operating loss, or NOL, carryforwards available to offset future taxable income. If not utilized, these carryforward losses will expire in various amounts for federal and state tax purposes beginning in 2031. NOLs generated after December 31, 2017 will be carried forward indefinitely with the yearly NOL utilization limited to eighty percent of taxable income generated in a given tax year.

Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, or the Code, substantial changes in our ownership may limit the amount of NOL and research and development credit carryforwards that could be used annually in the future to offset taxable income. The tax benefits related to future utilization of federal and state NOL carryforwards, credit carryforwards, and other deferred tax assets may be limited or lost if cumulative changes in ownership exceeds fifty percent within any three-year period. We have not completed a Section 382/383 analysis under the Code regarding the limitation of NOL and credit carryforwards. If a change in ownership were to have occurred, the annual limitation may result in the expiration of NOL carryforwards and credits before utilization. If eliminated, the related asset would be removed from the deferred tax asset schedule with a corresponding reduction in the valuation allowance.

We record unrecognized tax benefits as liabilities and adjust these liabilities when our judgment changes as a result of the evaluation of new information not previously available. Because of the complexity of some of these uncertainties, the ultimate resolution may result in a payment that is materially different from our current estimate of the unrecognized tax benefit liabilities. These differences will be reflected as increases or decreases to income tax expense in the period in which new information is available.

Recent Accounting Pronouncements

See Note 2 to our audited consolidated financial statements and Note 2 to our unaudited interim condensed consolidated financial statements included elsewhere in this prospectus for more information.

Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risks in the ordinary course of our business. These risks primarily include interest rate sensitivities.

Interest Rate Risk

We held cash and cash equivalents of $44.2 million and $31.5 million as of December 31, 2018 and June 30, 2019, respectively. We generally hold our cash in interest-bearing money market accounts. We believe that historical fluctuations in interest rates have not had a material effect on our results of operations during the periods presented. Due to the low risk profile of our investments, an immediate 100 basis point change in interest rates would not have a material effect on the fair market value of our cash.

Foreign Currency

Our reporting currency is the U.S. dollar. The functional currency of the subsidiary located in Australia is the Australian Dollar. Balance sheets prepared in the functional currencies are translated to the reporting currency at exchange rates in effect at the end of the accounting period, except for stockholders' equity accounts, which are translated at rates in effect when these balances were originally recorded. Revenue and expense accounts are translated using a weighted-average rate during the year. The resulting foreign currency translation adjustments are recorded as a separate component of accumulated other comprehensive loss in the consolidated balance sheets. Foreign exchange translation losses for the years ended December 31, 2017 and 2018 and the six months ended June 30, 2018 and 2019 were not material. Gains and losses resulting from exchange-rate changes on transactions denominated in a currency other than the local currency are included in earnings as incurred.

Effects of Inflation

Inflation generally affects us by increasing our cost of labor and clinical trial costs. We believe that inflation has not had a material effect on our results of operations during the periods presented.

Emerging Growth Company Status

We expect to be an emerging growth company, as defined in 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 elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date that we (i) are no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our consolidated financial statements may not be comparable to companies that comply with the new or revised accounting pronouncements as of public company effective dates.

We will remain an emerging growth company until the earliest of (i) the last day of the fiscal year following the fifth anniversary of the consummation of this offering, (ii) the last day of the fiscal year in which we have total annual gross revenue of at least $1.07 billion, (iii) the last day of the fiscal year in which we are deemed to be a "large accelerated filer" as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock held by non-affiliates exceeded $700.0 million as of the last business day of the second fiscal quarter of such year, or (iv) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period.

BUSINESS

Overview

We are a clinical-stage biopharmaceutical company developing a pipeline of novel therapies for patients with classical complement-mediated disorders of the body, eye and brain. Our pipeline is based on our platform technology addressing well-researched classical complement-mediated autoimmune and neurodegenerative disease processes, both of which are triggered by aberrant activation of C1q, the initiating molecule of the classical complement pathway. Evidence suggests that potent and selective inhibition of C1q can prevent tissue damage triggered in antibody-mediated autoimmune disease and preserve loss of functioning synapses associated with cognitive and functional decline in complement-mediated neurodegeneration. Our upstream complement approach targeting C1q acts as an "on/off switch" designed to block all downstream components of the classical complement pathway that lead to excess inflammation, tissue damage and patient disability in a host of complement-mediated disorders, while preserving the normal immune function of the lectin and alternative complement pathways involved in the clearance of pathogens and damaged cells.

Our pipeline of product candidates is designed to block the activity of C1q and the entire classical complement pathway in a broad set of complement-mediated diseases. Our first product candidate, ANX005, is a full-length monoclonal antibody formulated for intravenous administration in autoimmune and neurodegenerative disorders. Our second product candidate, ANX007, is an antigen-binding fragment, or Fab, formulated for intravitreal administration for the treatment of neurodegenerative ophthalmic disorders. We are also developing ANX009, an investigational, subcutaneous formulation designed for the treatment of systemic autoimmune diseases. We have completed Phase 1b clinical trials for ANX005 and ANX007 in patients with Guillain-Barré Syndrome, or GBS, and glaucoma, respectively. Both molecules were well-tolerated and showed full inhibition of C1q and the classical complement pathway.

Based on learnings from our initial trials, we are advancing our current programs while evaluating additional orphan and large market indications. We are also developing novel product candidates designed to inhibit C1q and other components of the early classical complement cascade with the goal of further broadening our portfolio. Finally, we are leveraging our disciplined development strategy in early clinical trials utilizing established biomarkers in an effort to enhance patient selection, measure target engagement and assess our product candidates' potential to meaningfully impact the disease process and improve the probability of technical success over shorter development timelines.

Annexon was co-founded by the late Dr. Ben Barres, former member of the National Academy of Sciences, Chair of Neurobiology at Stanford University and a pioneer in complement-mediated neurodegeneration, and Dr. Arnon Rosenthal, a world-renowned scientist and industry executive. We have assembled a seasoned and accomplished management team that has been involved in the development, approval and commercialization of numerous marketed drugs, and has been studying the complement pathway and autoimmune and neurodegenerative disorders for decades. Our team is further supported by an experienced scientific advisory board and leading healthcare investors that share our commitment to advancing transformative medicines for patients suffering from debilitating autoimmune and neurodegenerative diseases. Our key investors include Adage, Bain Capital, Blackstone (Clarus), New Enterprise Associates, Novartis Venture Fund, Satter Investment Management and Surveyor (Citadel).

We hold worldwide development and commercialization rights to all of our product candidates, which allows us to strategically maximize value from our product portfolio over time. Our intellectual property portfolio includes patent protection for our upstream complement platform and each of our product candidates.

Our Pipeline

Our pipeline is focused on antibody-mediated autoimmune and complement-mediated neurodegenerative disorders for which there is significant unmet medical need. Our product candidates are summarized below:

* Following clearance of the applicable investigational new drug applications, we intend to initiate Phase 2 clinical trials in the follow-on disease indications for ANX005.

Our first clinical-stage product candidate is ANX005, an investigational monoclonal antibody designed to block C1q and activation of the classical complement cascade. For GBS, ANX005 is designed to act early in the disease course to prevent nerve damage and irreversible neurological disability in GBS patients. In the Phase 1b dose-ranging trial in GBS patients, ANX005 was well-tolerated and resulted in full and prolonged C1q engagement and classical cascade inhibition in the blood and cerebrospinal fluid, or CSF. Patients treated with ANX005 also showed positive numerical trends across key GBS outcome measures, and a significant reduction in neurofilament light chain, or NfL, a well-accepted marker of nerve damage in neurodegenerative disease that has been shown to correlate with disease severity and clinical outcomes. GBS is a rare, acute, antibody-mediated autoimmune disease impacting the peripheral nervous system. There are currently no approved therapies for GBS in the United States, but intravenous immunoglobulin, or IVIg, and plasma exchange are the current standard of care in the Western world and parts of Asia.

We expect to initiate a trial of ANX005 in combination with IVIg by the end of 2019 and intend to advance ANX005 into a Phase 2 monotherapy trial for the treatment of GBS in the first half of 2020. We anticipate that the results from these trials will enable a global Phase 3 pivotal trial of ANX005 in combination with IVIg. ANX005 has received both Orphan Drug and Fast Track designations from the U.S. Food and Drug Administration, or FDA, for the treatment of GBS.

Beyond GBS, we also intend to study ANX005 in patients with warm autoimmune hemolytic anemia, or wAIHA, an antibody-mediated autoimmune disease characterized by the premature destruction of red blood cells. The classical complement pathway plays an important role in wAIHA through the removal of red blood cells labeled by activated complement components in the spleen or liver (extra-vascular hemolysis) and less common destruction of red blood cells in the blood vessels by the classical complement generated membrane attack complex (intravascular hemolysis). We plan to initiate a Phase 2 trial in patients with the primary diagnosis of wAIHA in 2020. With regard to complement-mediated neurodegeneration, we intend to study ANX005 in patients with Huntington's disease, or HD, as well as patients with amyotrophic lateral sclerosis, or ALS—two neurodegenerative disorders where aberrant classical complement activation has been shown to be associated with synapse loss, elevated levels of NfL and disease progression. We plan to initiate a Phase 2a trial

in patients with HD in the first half of 2020, and in patients with ALS in 2020 to assess ANX005's safety, tolerability, target engagement and impact on disease-related biomarkers such as NfL.

Our second clinical-stage product candidate is ANX007, an investigational C1q antigen-binding fragment, or Fab, designed for intravitreal administration in patients with complement-mediated neurodegenerative ophthalmic disorders. Consistent with the results we observed in preclinical studies, in the Phase 1b trial with intravitreal administration in glaucoma patients, ANX007 was well-tolerated and showed full target engagement and inhibition of C1q in the eye for at least four weeks. We believe inhibition of C1q may provide neuroprotective benefit by preventing the aberrant loss of functioning synapses in the retina in a variety of ophthalmic disorders, including glaucoma and geographic atrophy, or GA. Based on preclinical data, clinical results observed to date, proximate clinical validation and an established, objective clinical and regulatory path, we are planning a Phase 2 trial of ANX007 in patients with GA in 2020 with the goal of protecting against the loss of photoreceptor neurons in a well-defined patient population.

Our preclinical pipeline includes ANX009, an investigational C1q Fab designed for subcutaneous delivery. We are developing ANX009 to enable chronic dosing for patients with antibody-mediated autoimmune disorders where anti-C1q may have a disease-modifying effect and where we can utilize our targeted biomarker-driven approach. These disorders may include autoimmune hemolytic anemias and a subset of lupus nephritis patients who are selected for pathogenic anti-C1q antibodies, or PACA, and who have a high risk of renal flare. We intend to advance ANX009 through investigational new drug, or IND, enabling studies, select our initial lead autoimmune disease indication and commence a clinical trial in healthy volunteers in 2020.

Our Strategy

Our goal is to develop disease-modifying medicines for patients suffering from classical complement-mediated diseases. Key elements of our strategy include:

- ***Leveraging our distinct approach of inhibiting C1q and aberrant upstream classical complement activity to address a broad range of well-characterized classical complement-mediated diseases.*** By inhibiting C1q and the early classical cascade, we believe our product candidates are uniquely designed to address a wide range of antibody-mediated autoimmune diseases and complement-mediated neurodegenerative disorders. We believe full classical complement inhibition may result in clinical benefits by blocking aberrant upstream immune cell activation in our targeted indications, as well as potentially provide safety advantages by leaving the lectin and alternative pathways intact to perform their normal immune functions. We believe our two clinical-stage product candidates, ANX005 and ANX007, are the first and leading clinical-stage product candidates designed to inhibit C1q and the entire classical complement pathway.
- ***Advancing ANX005 through clinical development in multiple autoimmune and neurodegenerative indications of high unmet need.*** Our Phase 1b trial in patients with GBS demonstrated full target engagement of C1q in serum and the CSF, as well as a significant reduction in NfL, a well-accepted biomarker shown to be elevated in patients with GBS, HD and ALS and correlated with disease severity and clinical course and outcomes. We intend to advance ANX005 into a Phase 2 monotherapy trial in patients with GBS in the first half of 2020, and into Phase 2a trials in patients with HD in the first half of 2020 and in patients with ALS in 2020. We also intend to advance ANX005 into a Phase 2 trial in patients with wAIHA in 2020.
- ***Evaluating ANX007 as an agent for neuroprotective benefit in ophthalmic indications.*** We are developing ANX007 in neurodegenerative ophthalmic indications, such as glaucoma and GA. ANX007 reduced retinal damage in animal models of glaucoma and GA. In our Phase 1b trial in glaucoma patients, intravitreal administration of ANX007 resulted in full target engagement of C1q at both low and high doses. Based on this clinical dosing data, our preclinical data in glaucoma and GA, and proximate clinical validation from a downstream complement approach, we believe that ANX007 may

provide neuroprotective benefit in patients with these and other complement-mediated ophthalmic disorders. We are planning a Phase 2 trial of ANX007 in patients with GA in 2020.

- ***Expanding our autoimmune and neurodegenerative portfolios informed by data from our beachhead indications.*** Our initial indications represent our beachhead within antibody-mediated autoimmune and complement-mediated neurodegenerative diseases. We intend to leverage learnings from our initial indications to inform selection of additional orphan and larger patient populations involving related biological mechanisms. In our autoimmune portfolio, potential indications include antibody-mediated autoimmune disorders such as wAIHA, Cold Agglutinin Disease, or CAD, and lupus nephritis, (specifically in lupus nephritis patients with endogenous PACA). In our neurodegenerative portfolio, potential indications include complement-mediated neurodegeneration disorders in the eye and brain such as glaucoma, GA, progressive multiple sclerosis and Alzheimer's disease. We plan to efficiently prosecute these broad opportunities utilizing our disciplined, biomarker-driven development strategy.
- ***Developing additional product candidates that are designed to inhibit activation of the classical complement cascade.*** We have secured broad intellectual property protection for our upstream complement platform and intend to leverage our intellectual property and know-how to protect and enhance our leading position in developing novel therapeutics that target the classical complement cascade. We are developing product candidates, such as ANX009, to modulate the classical pathway with the potential to become tailored therapeutics for a large range of indications using different molecular modalities, dosing regimens and tissue localization strategies.
- ***Maximizing the value of our product candidates.*** We currently hold worldwide development and commercialization rights to all of our product candidates. We intend to pursue independent development and commercialization in select indications and markets that we can address with a focused sales and marketing organization. We may opportunistically explore licensing agreements, collaborations or partnerships to develop our product candidates in larger market indications where we could accelerate development utilizing the resources of larger biopharmaceutical companies.

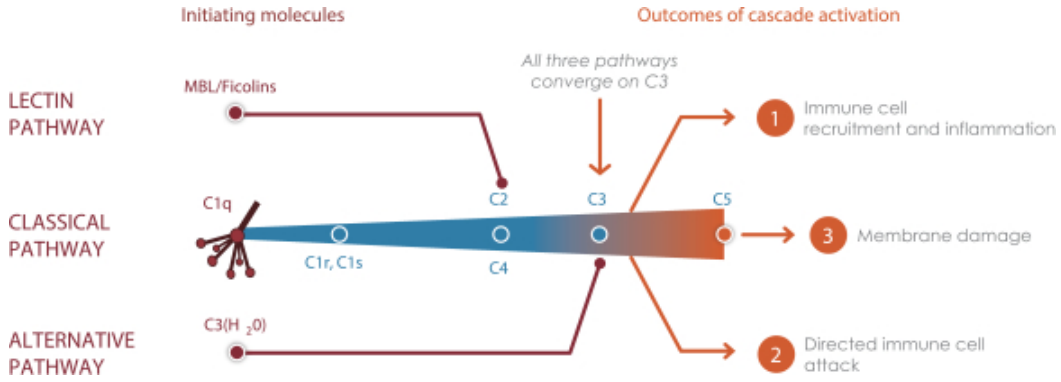
Overview of the Complement System and C1q Biology

The Complement System—three main complement pathways

The complement system is an integral component of the immune system that consists of many circulating and locally-produced molecules. This system evolved to enhance, or complement, other components of the adaptive and innate immune systems. The complement system, also known as the complement cascade, rapidly responds to pathogens, damaged cells and unwanted tissue components to facilitate their removal by the immune system.

There are three main complement pathways (also called cascades)—the classical, lectin and alternative pathways. Each pathway is initiated by different molecules that respond to distinct triggers. When activated, the initiating molecules set in motion a cascade of enzymatic reactions that greatly amplify, or complement, an inflammatory response. The classical pathway is initiated by C1q, which recognizes antibody complexes, specific pathogens, damaged cells or unwanted cellular components. The lectin pathway is triggered by carbohydrates on the surface of pathogens or cells. The alternative pathway amplifies the action of the other two pathways and also self-activates to eliminate pathogens or cells that are not specifically shielded by the body's built-in self-protective systems. While these three pathways are initiated by distinct molecules, they converge downstream on common pathway components known as C3 and C5.

The three main pathways of the complement cascade are activated by independent molecules but converge at C3



Aberrant activation of the complement system can result in a range of diseases characterized by an attack on healthy tissue, such as red blood cells, nerve cells or kidney components. A broad range of diseases are known to be associated with pathological activation of the complement cascade, including antibody-mediated autoimmune disorders such as GBS, wAIHA, CAD and lupus nephritis, and complement-mediated neurodegeneration disorders in the eye and brain such as glaucoma, GA, progressive multiple sclerosis and Alzheimer's disease. We believe intervening in the activation of the complement cascade offers a potent and selective mechanism for specifically slowing or reversing these disease processes.

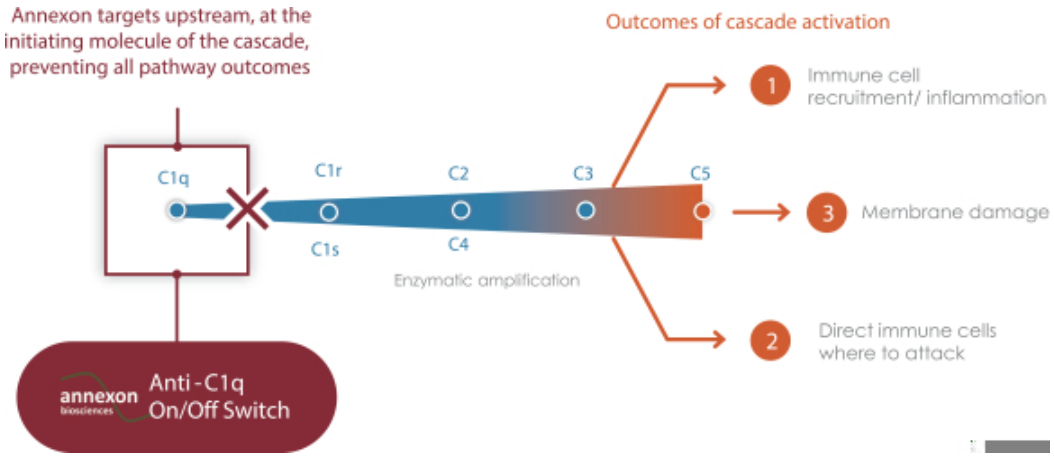
Specific activated components of the complement cascade have important immune functions that contribute to three key outcomes:

- ***Immune cell recruitment and inflammation.*** Specific activated molecules from the cascade serve as soluble signals to make blood vessels leaky and attract immune cells into tissues.
- ***Directed immune cell attack.*** Several complement components, including C1q, bind directly to the pathogen and serve as receptors that direct immune cell attack and pathogen engulfment.
- ***Membrane damage.*** Downstream components of the cascade directly puncture the pathogen or cell surface, causing membrane damage and lysis.

Broad potential for Classical Complement pathway targeted therapeutics in Autoimmune and Neurodegenerative Diseases

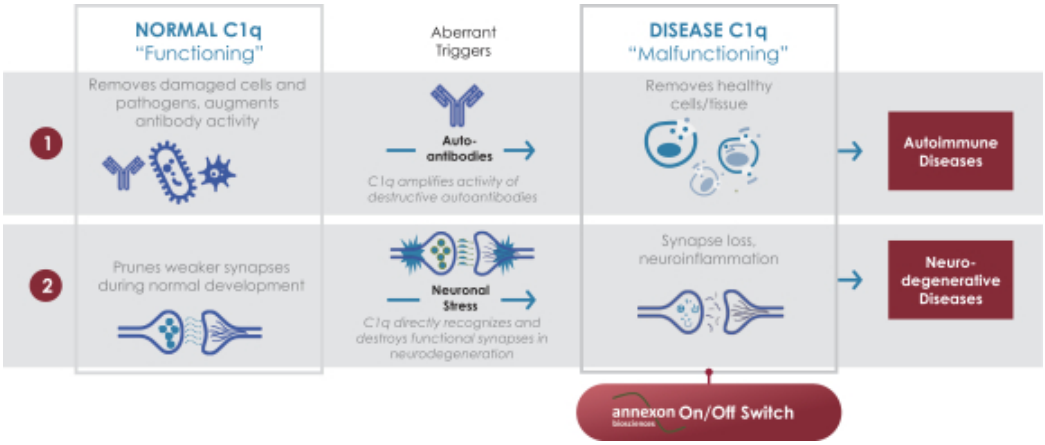
The classical complement cascade has a well-established role in augmenting antibody function within the immune system. C1q recognizes antibodies bound to pathogens or cells and activates the classical pathway to trigger their removal and clearance by the immune system. C1q can also directly recognize pathogens, damaged cells or unwanted cellular components leading to similar downstream clearance. A more recent finding made by the laboratory of Dr. Ben Barres, our scientific founder, is that C1q also directly interacts with neuronal connections, or synapses, during early development. Recognition of weaker synapses by C1q triggers the classical complement cascade and directs immune cells to "prune" the synapses away from neurons, thereby reinforcing stronger synapses to establish appropriate neuronal connections.

Aberrant activation of the initiating molecule, C1q, can lead to three main outcomes



Because of its central role in immune function, aberrant activation of C1q can lead to damage or destruction of healthy tissue. We are focused on two distinct disease processes involving this common mechanism: antibody-mediated autoimmune disease and complement-mediated neurodegeneration.

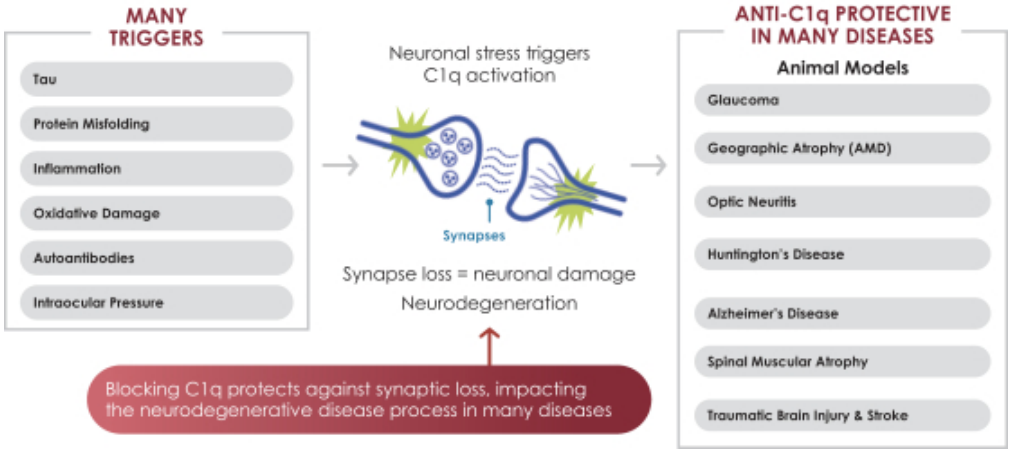
Anti-C1q functions as an on/off switch to prevent tissue damage and preserve function



In antibody-mediated autoimmune disease, self-reactive antibodies bind to cells or tissues, activating C1q and leading to damaging inflammatory responses. We have observed that inhibition of C1q was protective in several animal models of antibody-mediated autoimmune disease, including neuromyelitis optica, or NMO, and two variants of GBS. In NMO, auto-antibodies recognize cells within the central nervous system, or CNS, and can lead to rapid localized destruction of the optic nerve and regions of the spinal cord, while in GBS pathogenic antibodies react with components of the peripheral nerve system, or PNS, to cause widespread peripheral nerve damage and paralysis. This disease process is also evident in antibody-mediated autoimmune disease involving blood components, such as wAIHA and CAD, characterized by auto-reactive antibodies that trigger destruction of red blood cells, and systemic lupus erythematosus, or SLE, where endogenous pathogenic antibodies against C1q itself drive aberrant C1q activation and are highly associated with kidney damage or lupus nephritis.

In complement-mediated neurodegeneration, aberrant activation of C1q at synapses in aging and disease can lead to excessive synapse loss and neuronal damage, driving disease progression in multiple neurodegenerative disorders regardless of the initiating factor. In animal models, C1q accumulated on synapses with age, building up to 300-fold higher levels than in younger animals. It did not activate with normal aging, but other inflammatory stimuli, including misfolded proteins, metabolic dysfunction or increases in intraocular pressure, appeared to aberrantly reactivate C1q's developmental role in synapse elimination. Complement activation and aberrant synapse pruning in disease may lead to neuroinflammation, loss of synaptic neuronal connections and neurodegeneration. In support of this hypothesis, we and other investigators have observed that C1q inhibition was protective in numerous models of neurodegenerative disease, including diseases of the eye, such as glaucoma and age-related macular degeneration, chronic diseases of the CNS, such as Alzheimer's, HD and Spinal Muscular Atrophy, or SMA, and acute injury, such as traumatic brain injury and stroke.

Synaptic loss is a pathogenic driver of disability in many neurodegenerative diseases, protected with C1q inhibition



Our differentiated approach to treating complement-mediated autoimmune and neurodegenerative disease through inhibition of C1q

We believe that in order to selectively inhibit aberrant activation of the classical complement pathway implicated in driving certain complement-mediated autoimmune and neurodegenerative diseases, it is important to target the early components of the classical cascade, particularly C1q, C4 and C3. Activated fragments of C4 and C3 induce vascular leakiness and immune cell recruitment into the tissue, while other fragments of C4 and C3, as well as C1q, work together to direct immune cell attack to the cell or synapse surface. Furthermore, C1q inhibition blocks downstream activation of C5 and its membrane damaging effects. We believe that inhibition of C1q does not block the activity of these components in the lectin or alternative complement pathways, and both of these pathways will continue to perform their normal immune functions.

Our Platform

Our novel upstream complement platform is designed to completely inhibit classical complement activity for the treatment of antibody-mediated autoimmune disease and complement-mediated neurodegeneration. We believe there are potential advantages to our approach of upstream inhibition of the classical complement cascade, which include:

- ***Full inhibition of the classical cascade while preserving healthy immune function of the other complement pathways.*** Inhibition of C1q fully inhibits the classical cascade, including components

downstream of C1q such as C4, C3 and C5. As a result, we believe our approach is designed to block all classical complement activity that can contribute to disease pathology, including immune cell recruitment, directed immune cell attack and membrane damage. By targeting upstream components of the classical complement pathway, our approach leaves the lectin and alternative pathways to perform their normal immune function, which may aide both clinical improvement and safety. Our approach is also distinct from inhibiting C3 or C5. Inhibition of C5 will not affect the upstream components of the classical pathway involved in pathology (C1q, C4 and C3), while inhibition of C3 will block downstream components in all three complement pathways.

- ***Broad applicability across many indications.*** We believe our approach has broad utility for the treatment of diseases in which full inhibition of the entire classical complement cascade may be beneficial. We believe our approach is distinguishable from those that target only downstream complement components. Our initial indications represent our beachhead within antibody-mediated autoimmune and complement-mediated neurodegenerative diseases, and we will selectively pursue both orphan and larger patient population diseases with clear biological evidence of classical complement activation. We are also developing novel product candidates targeting C1q and early components of the classical complement cascade, and will utilize different modalities to target these components of the classical complement pathway.
- ***Disciplined, biomarker-driven development strategy for our product candidates.*** We are deploying a disciplined, biomarker-driven development strategy designed to establish confidence that our product candidates are engaging the specific target at a well-tolerated therapeutic dose in the intended patient tissue. We design small, early-stage clinical trials to rigorously evaluate our product candidates using target engagement and pharmacodynamic biomarkers. We are utilizing sensitive, specific assays for C1q and downstream classical complement components to evaluate target engagement in patient tissues that are most relevant for the diseases that we are treating, such as CSF for neurological diseases and aqueous humor for ocular diseases. In neurodegenerative diseases, we are measuring our product candidate’s impact on NfL, a sensitive marker of neurodegeneration, to provide proof-of-concept in small patient trials. We believe that this development strategy allows us to make rational decisions regarding our therapeutic pipeline, increasing the probability of technical success over shorter development timelines for product candidates we advance into later stage trials.

Our Pipeline

Our pipeline is focused on antibody-mediated autoimmune and complement-mediated neurodegenerative disorders for which there is significant unmet medical need. Our product candidates are summarized in the table below.

* Following clearance of the applicable investigational new drug applications, we intend to initiate Phase 2 clinical trials in the follow-on disease indications for ANX005.

Our First Product Candidate, ANX005

ANX005 is an investigational humanized recombinant monoclonal antibody that is designed to potently bind and inhibit C1q. Our Investigational New Drug, or IND, application for ANX005 in GBS was authorized to proceed in February 2019. We have completed a Phase 1b clinical trial for ANX005 in patients with GBS, and we intend to initiate a drug-drug interaction, or DDI, trial assessing the concomitant use of ANX005 and IVIg in GBS patients by the end of 2019. Further, we plan to advance ANX005 into a Phase 2 trial in GBS patients in the first half of 2020, as well as Phase 2a trials in patients with HD in the first half of 2020 and in patients with ALS in 2020. ANX005 has been granted Orphan Drug and Fast Track designation from the FDA for the treatment of GBS.

ANX005 for the Treatment of GBS

Overview of Guillain-Barré Syndrome

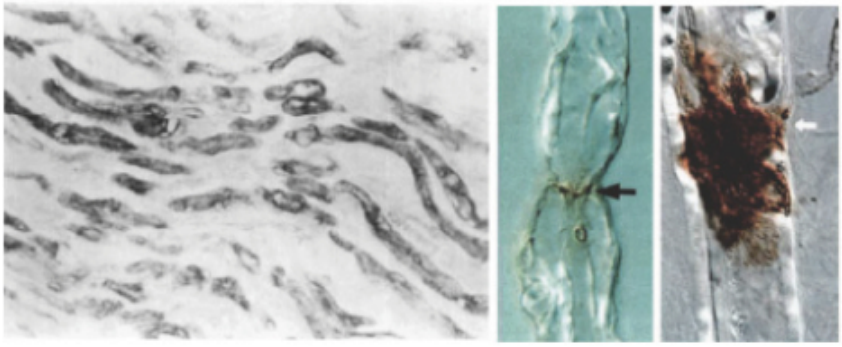
GBS is a severe acute inflammatory disease typically triggered by a preceding infection, in which aberrant auto-antibodies cause neuronal injury and acute paralytic neuropathy. In 2011, the estimated annual incidence of GBS in North America and Europe ranged from 0.8 to 1.9 cases per 100,000 individuals. The economic cost of GBS is substantial, largely due to the permanent disability and mortality it can cause.

Based on 2011 estimates, the clinical course of GBS usually involves rapidly progressive weakness in the limbs culminating in neuromuscular paralysis within two to four weeks of onset. According to these estimates, 20 to 30 percent of patients require mechanical ventilation, over 20 percent have permanent motor or sensory disability and 2 to 17 percent of cases result in death. Many patients with GBS require extensive monitoring and supportive care and will seek treatment in a hospital within a few days of onset of the disease. Because approximately a quarter of patients need artificial ventilation, and many go on to develop autonomic disturbances, many patients need admission in an intensive care unit. Symptoms peak within four weeks, followed by a recovery period that can last months or years, as the autoantibody response decays and the nervous system repairs itself.

There are currently no therapies approved by the FDA for the treatment of GBS. Treatment guidelines published by the American Academy of Neurology recommend early initiation of IVIg or plasma exchange in patients diagnosed with GBS. IVIg and plasma exchange are the established standard of care in the Western world and parts of Asia. Although IVIg and plasma exchange have been shown to provide some benefit, significant unmet need still exists, and many patients, despite receiving the standard of care, are left with residual neurological disability, accompanied by chronic pain and fatigue.

C1q is a key driver of pathogenesis in GBS

GBS is an acute, autoimmune disease driven by antibodies that lead to activation of the classical complement cascade. Pathological nerve-targeting auto-antibodies, which may be triggered by an infection, lead to the activation of C1q and the classical complement cascade. Studies have shown that pathogenic auto-antibodies are present in the serum and that activated components of the complement cascade deposited on peripheral nerve tissue from GBS patients. The figure below illustrates the activation of the classical complement pathway within peripheral nerves in a GBS patient. The left image shows a low magnification view of a peripheral nerve from a GBS patient showing numerous individual nerve fibers coated with membrane-damaging complement activation products (C5b-9; dark staining), the middle image shows a high magnification view of an individual nerve fiber showing deposition of C3d (dark staining), a complement activation product that directs immune cell attack, and the right image shows a high power image of an individual nerve fiber being probed by an infiltrating immune cell (macrophage).



We believe that by blocking the activity of C1q early in the onset of the disease, we can minimize the neural damage caused by these pathogenic auto-antibodies, in turn reducing the patients' symptoms and accelerating their neurological recovery.

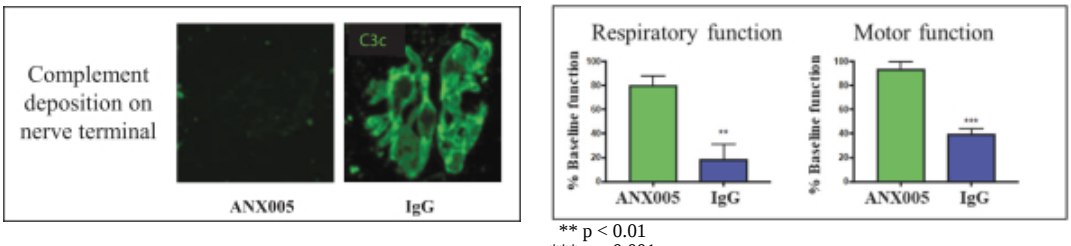
Neurofilament light chain, a marker of neurodegeneration, is highly elevated in GBS

NfL is a well-accepted biomarker of nerve damage in autoimmune disorders characterized by damaged or degenerating nerves, such as GBS, multiple sclerosis, chronic inflammatory demyelinating polyneuropathy and multifocal motor neuropathy, as well as in many chronic neurodegenerative diseases, such as HD, ALS and SMA. In these diseases, elevated NfL levels correlate with current patient disability and predict patient outcomes. Moreover, other treatments that have been clinically effective in neurodegenerative diseases have been shown to reduce NfL levels in patients.

Preclinical Development in GBS

As illustrated below, in a mouse model of severe GBS, ANX005 treatment blocked complement deposition on nerve terminals (left panel) and protected respiratory and motor function (right panel).

Respiratory and motor function



** p < 0.01
*** p < 0.001

Phase 1a Trial in Healthy Volunteers

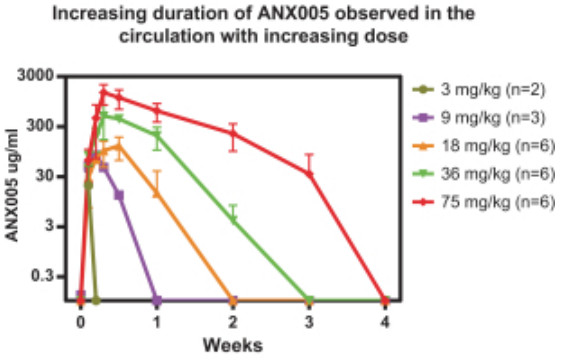
ANX005 was initially evaluated in a Phase 1a dose-escalation single-dose trial designed to assess safety, pharmacokinetics and pharmacodynamics. This trial was conducted in 27 healthy volunteers in Australia. The dosing levels of ANX005 delivered in this trial ranged from 1 mg/kg to 8.2 mg/kg. We terminated the trial in healthy volunteers and transitioned our clinical development to test ANX005 directly in patients with GBS.

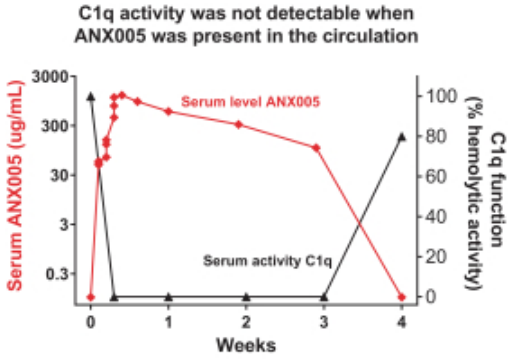
Phase 1b Trial in GBS Patients

We have closely coordinated our clinical efforts with leading researchers of the International GBS Outcomes Study, or IGOS, in pursuing a novel therapy for GBS. In order to achieve the goal of developing a better treatment, practitioners established IGOS, which has collected natural history data from over 1,750 newly-diagnosed GBS patients worldwide. IGOS is a prospective, observational, multicenter cohort trial that aims to identify the clinical and biological determinants and predictors of disease onset as well as the subtype, course and outcome of GBS. IGOS was established to help develop a better understanding of the mechanism of disease progression and recovery and to conduct selective therapeutic trials to improve patient outcomes. This natural history database is an invaluable resource to clinical development, facilitating the design of clinical trials and the optimal selection of endpoints, and has followed GBS patients for over seven years. We initiated our GBS clinical development in Bangladesh, a country where the incidence of GBS is several times higher than in North America and Europe and where 17% of patients die from the disease and 20% suffer permanent disability and are unable to walk. Bangladesh has enrolled more patients in IGOS than any other country, representing approximately 15% of all enrolled patients worldwide.

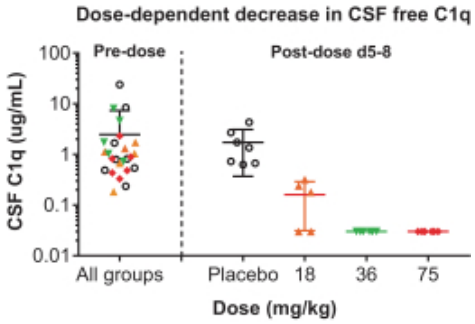
We conducted a Phase 1b placebo controlled, dose escalation trial (n=31) of ANX005 in GBS patients at a tertiary care hospital in Bangladesh, in compliance with good clinical practice, or GCP. The trial objectives included safety and tolerability, dosing levels and target engagement, and included a follow up of eight weeks. ANX005 was well tolerated, and no drug-related serious adverse events or drug-related discontinuations occurred. The most common adverse events were infusion-related reactions, or IRRs, which occurred in the majority of patients and presented as low grade, non-serious, transient skin rash. These IRRs were mitigated by standard anti-inflammatory pre-medications and slowly administering ANX005 until saturation of endogenous C1q was reached.

Results from the Phase 1b trial showed increasing serum levels of ANX005 and its duration in the circulation at increasing dose levels, and that the drug was present in the serum for up to three weeks at a dose of 75 mg/kg (left panel). When ANX005 was present in the circulation C1q function was fully inhibited, and rapidly returned to normal levels as ANX005 serum levels declined (right panel showing data from a patient receiving 75 mg/kg).

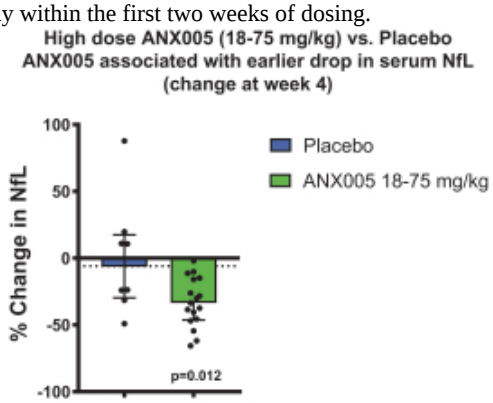




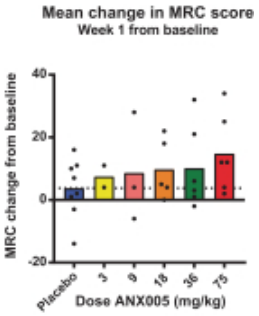
Much of the proximal weakness in GBS patients is due to involvement of peripheral nerve roots that are immersed in CSF as they exit the spinal cord. Hence, we believe product candidate levels and target inhibition in CSF may be an important contributor to efficacy. We observed that ANX005 entered the CSF of GBS patients treated with doses of 18-75 mg/kg of ANX005, resulting in full engagement of C1q inhibition in the CSF (as shown below).

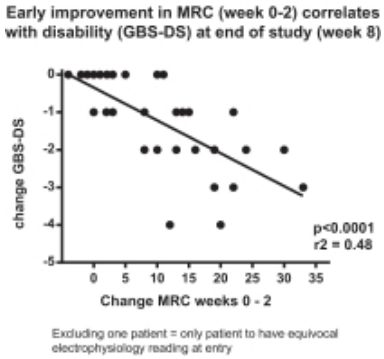


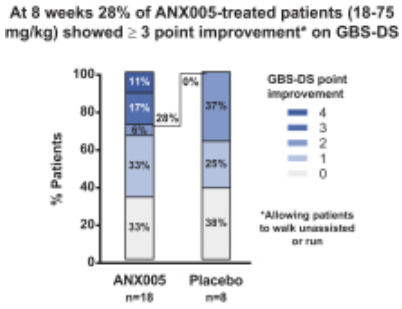
In the Phase 1b trial in GBS patients, ANX005 treatment at doses that engaged C1q in both serum and CSF (i.e., 18-75 mg/kg dose) resulted in an early decline in serum NfL levels compared to placebo. We believe these results suggest that ANX005 had a rapid impact on the disease process by ameliorating antibody-induced nerve damage, likely within the first two weeks of dosing.



In this Phase 1b trial, we also explored the administration of ANX005 on multiple validated clinical disability measures including GBS-Disability Score, or GBS-DS, Medical Research Council Muscle Strength Scale, or MRC, and Inflammatory Rasch-built Overall Disability Scale, or I-RODS over an eight-week period. Though the trial was not statistically powered for efficacy evaluations, treatment with ANX005 resulted in consistent, positive numerical trends in all of these clinical instruments. In addition, we observed an improvement in the number of days of ventilation, and a dose-dependent improvement in MRC within the first week of treatment as shown below (left panel). Of note, early improvement in MRC is known to have strong prognostic implications on long-term functional recovery (modified Erasmus Outcome Score). In line with this published data, we found that early improvement in MRC correlated with patients' disability scores at the end of the Phase 1b trial (GBS-DS at week eight; middle panel). This result is important because GBS-DS is typically used as the primary endpoint in GBS registrational studies. Of relevance, 28% of patients treated with high dose ANX005 (18-75 mg/kg) improved by at least three points on GBS-DS compared to 0% of placebo-treated patients (right panel). We intend to present the findings from our Phase 1b trial at a future medical meeting.







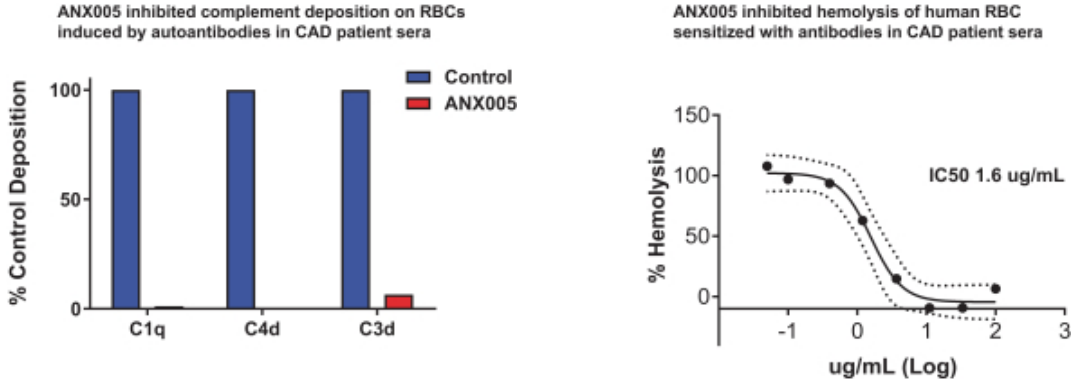
Ongoing Development of ANX005 for GBS

Based on topline results from our Phase 1b trial, we intend to initiate a Phase 2 trial of ANX005 in GBS in the first half of 2020. We also intend to initiate a trial of ANX005 with IVIg by the end of 2019, in preparation for a global Phase 3 pivotal trial, evaluating the benefit of ANX005 in combination with IVIg. ANX005 has received both Orphan Drug and Fast Track designations from the FDA for the treatment of GBS.

ANX005 for Future Autoimmune Indications

Beyond GBS, we also intend to study ANX005 in specific subsets of patients with autoimmune hemolytic anemias, or AIHA, characterized by the presence of auto-antibodies that bind red blood cells and activate the classical complement pathway. The temperature at which these auto-antibodies agglutinate red blood cells determines whether the hemolytic anemia is labelled "cold" or "warm." Activated complement components (e.g., C3d, C4d) label red blood cells for removal in the spleen or liver (extra-vascular hemolysis) and less commonly direct lyse red blood cells in the blood vessels by the classical complement generated membrane attack complex (intravascular hemolysis). The "cold" forms of AIHA are known to be complement-mediated disorders, while a subset of patients with the "warm" form of AIHA are hypothesized to have complement-dependent disease. It is estimated that less than 5,000 people have the cold form while approximately 30,000 people have the warm form of AIHA in the United States. There are no approved treatments for AIHA in the United States; however, blood transfusions, steroids, Rituxan and splenectomies are currently used to treat patients with AIHA.

We have found that ANX005 inhibited complement deposition on human red blood cells (left panel) and prevented direct red blood cell lysis (right panel) induced by sera from CAD patients as *ex vivo* models of extravascular and intravascular lysis, respectively.



We have observed in both preclinical studies and in our Phase 1b trial in patients with GBS that treatment with ANX005 resulted in near complete inhibition of complement-mediated hemolysis. Thus, we believe that ANX005 may be able to achieve near complete suppression of complement-mediated hemolysis in patients with wAIHA. We plan to initiate a Phase 2 trial in patients with wAIHA, who are enriched for complement-mediated pathology in 2020.

ANX005 for the Treatment of Huntington's Disease

Overview of Huntington's Disease

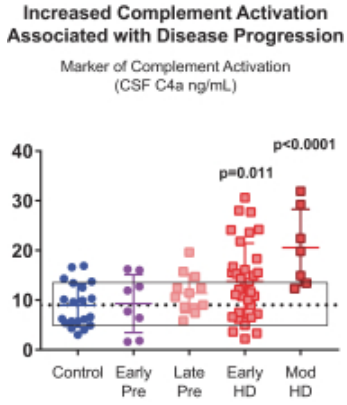
HD is an orphan hereditary neurodegenerative disease that is fatal and for which there are no approved treatments that can reverse or slow its course of progression. HD symptoms typically begin to manifest between the ages of 30 to 50 and progress as a devastating neurodegenerative disorder characterized by abnormal involuntary movements, known as chorea, spreading to all muscles, progressive dementia and psychiatric manifestations such as depression and psychosis. Ultimately, affected individuals succumb to cardio-respiratory complications. Life expectancy after symptom onset is approximately 10 to 20 years. Some of the symptoms of HD such as chorea and depression can be managed with medications.

Approximately 75,000 people in the United States and other major market countries are projected to have HD by 2025. Because HD is a genetic disease in which an individual with a single copy of the dysfunctional gene will develop the disease, every child of a parent with HD has a 50 percent chance of inheriting the faulty gene

and developing the disease. There are an estimated 200,000 individuals in the United States who have a 50 percent risk of developing HD because of their family relationship to HD patients. It is estimated that only five to seven percent of these at-risk individuals have voluntarily undergone genetic testing due to the devastating nature of the disease and the lack of any effective treatments. The development of a disease-modifying therapy could encourage at-risk patients to seek out testing and thereby both provide hope to gene carriers and expand the number of patients who may benefit from treatment.

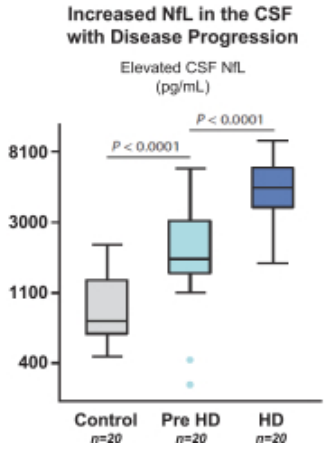
C1q is a key driver of pathogenesis in HD

HD is caused by a mutation in the huntingtin gene, which is thought to produce a mutant neurotoxic protein that promotes the degeneration of neurons. The classical complement cascade is activated in HD patients and is associated with progressive synapse loss. We hypothesize that C1q plays an important role in the degenerative process by tagging weakened synapses and triggering a neuroinflammatory response that leads to aberrant synapse loss and progressive neuronal destruction. As shown below, we observed that increased complement activation was associated with disease progression (as measured by C4a levels in CSF).



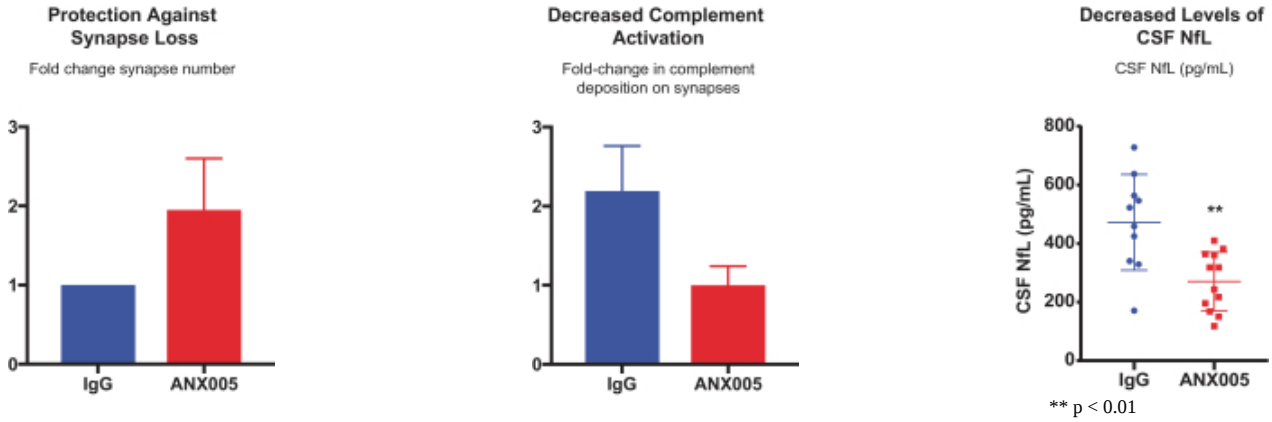
NfL is elevated in HD patients

Both serum and CSF NfL levels were found to be elevated in HD patients compared to healthy controls, consistent with other neurodegenerative diseases. In addition, NfL levels reflected both current disability and future patient outcomes.



ANX005 protected against synapse loss and reduced NfL in a preclinical model of HD

In a transgenic mouse model of HD, we assessed the potential of peripherally administered ANX005 to inhibit activation of the classical complement cascade and protect against synapse loss. As shown below, ANX005 treatment protected against the loss of synapses in a region of the brain affected by disease (left panel) and reduced the amount of activated complement factor C3d that was deposited on synapses (striatum; middle panel). Of translational relevance to the clinic, ANX005 reduced CSF levels of NfL within two months of treatment as compared to controls (right panel). We believe these three lines of evidence support the hypothesis that ANX005 blocks complement-mediated neurodegeneration in HD and can lead to preservation of neuronal synapses.



** p < 0.01

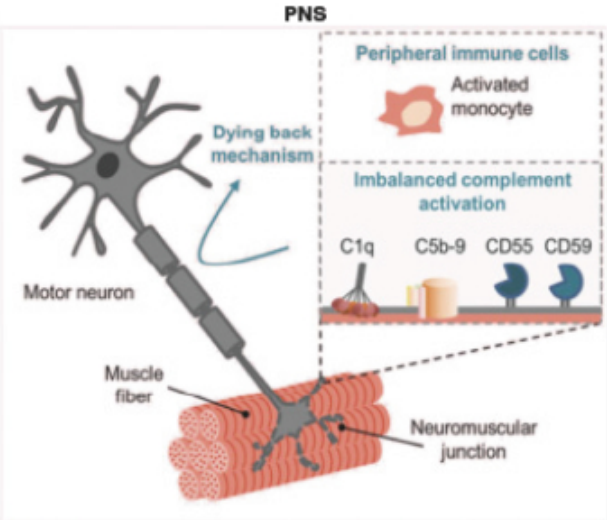
Development of ANX005 in HD

We are planning to file an IND for ANX005 in HD and initiate a three-month Phase 2a trial in HD patients in the first half of 2020. This open-label trial would evaluate ANX005's ability to inhibit C1q in the CSF and to reduce levels of serum and CSF NfL, a marker of neurodegeneration with prognostic significance.

ANX005 for the Treatment of ALS

Overview of ALS

ALS is a devastating neurodegenerative disease with no curative treatment that affects about 30,000 patients worldwide. The disease is a motor neuron disease impacting both the central and peripheral nervous systems. ALS causes progressive weakness of limb, respiratory, swallowing and speaking muscles, and death typically occurs within two to five years after symptom onset. There is evidence that neurodegeneration begins peripherally, at the neuromuscular junction, or NMJ, and then proceeds proximally to involve the peripheral motor nerves, ventral nerve roots, spinal cord and brain motor cortex ("dying back" neurodegeneration). The NMJ is a specialized synapse between peripheral motor nerve and muscle fiber. As illustrated below, "dying back" of the peripheral nerve in ALS is associated with C1q / classical complement deposition on the NMJ.

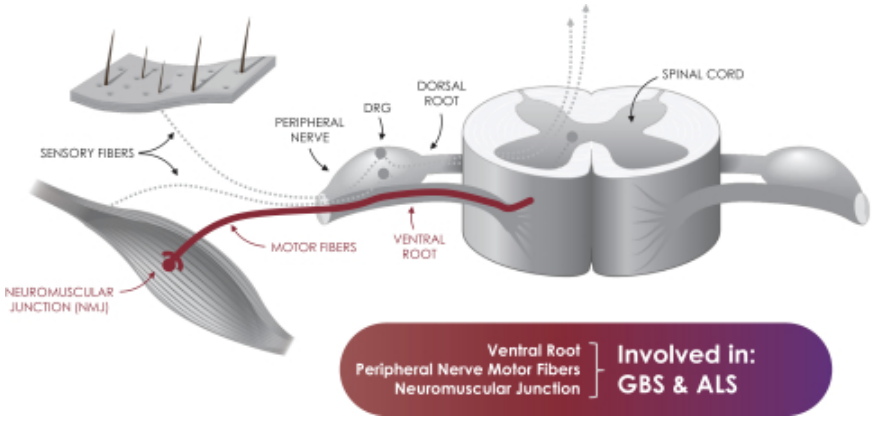


C1q involvement in ALS

C1q and classical pathway activation is elevated in ALS patients. Specifically, C1q deposition has been noted in NMJs and C4d levels are increased in the CSF of ALS patients. In preclinical models of ALS, the amount of C1q deposition in NMJs correlated with weakness of the animals. Our goal with our C1q inhibitor is to prevent loss of NMJs and hence prevent "dying back" neurodegeneration of motor nerves in patients with ALS. Of note, there is significant overlap in the peripheral nerve structures that are involved in both GBS and ALS; therefore, we believe our ANX005 pharmacokinetics and pharmacodynamics data in GBS patients can be extrapolated to ALS patients.

Likewise, in an experimental model of SMA, another peripheral nerve degenerative disease that is pathologically similar to ALS, we found that treatment with anti-C1q antibody (mouse precursor of ANX005) protected against synapse loss and improved motor function. The same peripheral nerve pathway is involved in GBS and ALS, as illustrated below.

The same peripheral nerve pathway is involved in GBS and ALS



Development of ANX005 in ALS

ALS patients have substantial elevations of NfL in both CSF and serum, and it has been observed that NfL levels in ALS patients correlated both with current disability and future patient outcomes. We are planning to initiate a three-month, open-label Phase 2a trial in ALS patients in 2020 to evaluate ANX005's ability to inhibit C1q in the CSF and to reduce NfL levels in serum and CSF in ALS patients. Based on the results of this trial, we will evaluate whether to initiate a potential registrational program for ALS.

If either of the HD or ALS Phase 2a trials are successful, we will consider proof-of-concept studies in other CNS neurodegenerative indications, such as Alzheimer's disease and progressive multiple sclerosis.

Our Second Product Candidate, ANX007

ANX007 is an investigational monoclonal antibody antigen-binding fragment, or Fab, that is designed to potently bind to C1q and inhibit activation of the classical complement cascade. We filed an IND for ANX007 in 2018 and are developing ANX007 as an intravitreal injection for ophthalmic indications such as glaucoma and geographic atrophy. We have conducted a Phase 1b trial of ANX007 in patients with glaucoma, and based on these and preclinical study results, we believe ANX007 may have potential to treat patients with GA.

ANX007 for the Treatment of Ophthalmic Diseases, including Glaucoma and Geographic Atrophy

Overview of Glaucoma

Glaucoma is a major cause of blindness and results from progressive loss of neurons in the retina called Retinal Ganglion Cells, and optic nerve degeneration. A frequent risk factor for glaucoma is elevated intraocular pressure, or IOP, but there are patients with "normotensive" glaucoma who have normal IOP. Patients with glaucoma have progressive loss of peripheral vision, which can eventually result in functional blindness.

It is estimated that over three million people in the United States have glaucoma but only half of these people have been diagnosed. More than 120,000 people in the United States are blind due to glaucoma,

accounting for 9 to 12% of all cases of blindness. The worldwide prevalence of glaucoma has been estimated to be over 60 million people. Glaucoma is a disease that is more frequently found in older adults with rates increasing several fold between ages 50 and 70. Similar to other neurodegenerative diseases, the overall prevalence of glaucoma is projected to increase as populations age worldwide.

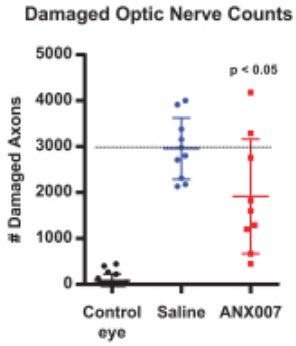
Glaucoma is one of the largest segments of the global ophthalmic market and has a significant impact on the quality of life. Patients' ability to perform daily activities becomes increasingly limited as the disease progresses. Individuals with glaucoma are more likely to experience falls, to be involved in motor vehicle collisions, to suffer depression and to require admission to a nursing home.

The goal of existing therapies for glaucoma is reduction of IOP. IOP-lowering treatments are typically administered in the form of eye drops, and patients may require surgery to facilitate drainage of fluid in the eye. However, approximately ten percent of people who receive appropriate treatment nevertheless continue to experience progressive vision loss. The optic nerve damage observed in glaucoma is believed to be irreversible, highlighting the need for neuroprotective therapies that can slow or stop the damage to optic nerves.

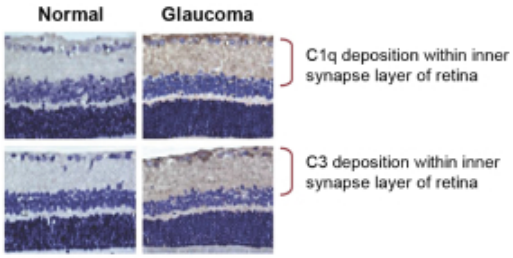
Role of C1q in Glaucoma

C1q, the initiating molecule of the classical complement cascade, has been implicated in the progression of neurodegenerative disease, including glaucoma. The lab of our scientific founder, Dr. Ben Barres, reported that C1q accumulated on retinal neurons and their synapses early in the disease process in a chronic mouse model of glaucoma, before the onset of other observable changes. C1q accumulation continued as synapses were lost, followed by loss of the optic nerve. Subsequent studies showed that genetic deletion of C1q protected against optic nerve damage in mice at 12 months of age even on top of C5 deficiency.

Using pharmacological inhibition of C1q with ANX007, we observed these findings in a different mouse model of glaucoma involving acute elevation of IOP. In this model, animals received an intravitreal injection of the M1-Fab murine precursor of ANX007 at the time of IOP elevation, followed by a second dose one week later, and their retinas were examined at week 2. As shown in the figure below, intravitreal administration of ANX007 protected against optic nerve damage.



Independent investigators observed elevated levels of C1q and other components of the classical complement cascade in the inner retinal synapse layer of 34 out of 34 human donor eyes from patients with glaucoma, as illustrated below. C1q was not found in the eyes of donor eyes from individuals who did not have glaucoma.



Overview of Geographic Atrophy

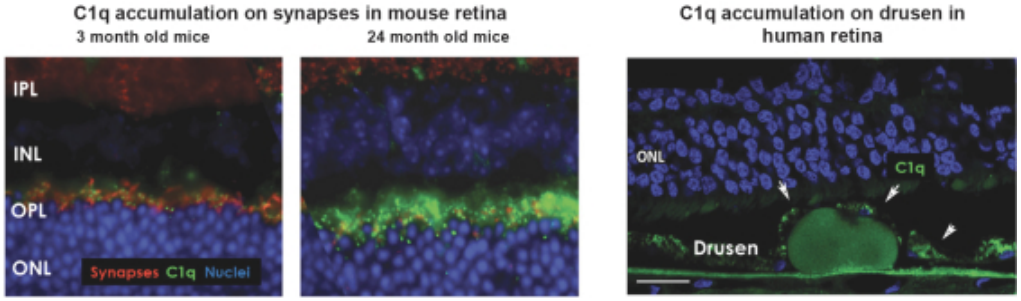
GA is an advanced, vision-threatening form of age-related macular degeneration, or AMD, and is a chronic, progressive disease of the macula that results in loss of central vision. The disease typically affects one eye first, with a high likelihood of it occurring in the second eye over time.

There are two forms of AMD, “dry” AMD and “wet” AMD. Dry AMD is the most common form, representing approximately 85% to 90% of all AMD cases. Geographic atrophy represents the advanced form of dry AMD and is characterized by progressive atrophy of retinal pigment epithelial cells, overlying photoreceptors and underlying choriocapillaries. An early feature of the disease is the presence of drusen, which is comprised of extracellular yellow deposits at the back of the retina.

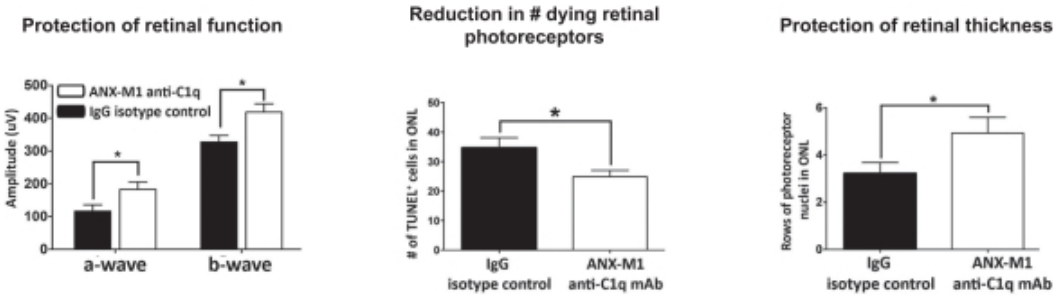
GA accounts for about ten percent of legal blindness related to AMD. Approximately one million individuals in the United States suffer from geographic atrophy. As with AMD, the prevalence of geographic atrophy increases with age. There are no approved therapies to prevent either the onset or progression of geographic atrophy.

Role of C1q and Complement in Geographic Atrophy

Genome-wide association studies have strongly implicated multiple components of the complement cascade in AMD and geographic atrophy. For example, specific alleles of the gene for C3 can increase the likelihood of developing AMD by 50 percent. Histopathological investigations have also observed the presence of complement components in geographic atrophy. These studies largely point to a role of excessive C3 activity in disease, but do not indicate how C3 is being activated (classical, lectin or alternative pathways). We have identified a potential dual role of C1q and the classical cascade as an important complement-activating system in geographic atrophy. First, we found that C1q strongly accumulated on photoreceptor cell synapses with normal age or disease, as shown below (left panels), implicating C1q's role in excessive synapse pruning and complement-mediated neurodegeneration. Second, C1q and C1q ligands, such as C-reactive protein, also accumulated in the retina below photoreceptor cells in association with drusen (extracellular membrane and protein debris associated with geographic atrophy; right panel). These results suggest that the photoreceptor neurons and pigmented retinal epithelial cells – cell types that are both lost in GA – are sandwiched between deposits of C1q and that the classical complement cascade may have an ongoing and pathogenic role in GA by activating C3.



In support of this hypothesis, we found that either deletion or pharmacologic inhibition of C1q was protective in an animal model of photoreceptor neuron loss induced by photo-oxidation, as shown below. Further, components of the classical complement cascade have been associated with photoreceptor cells in human GA tissue (C4 and C3) and implicated in photoreceptor cell targeting with an *in vitro* assay. Finally, C1q is locally produced within the retina during disease by infiltrating immune cells, indicating that its pathogenic role may be amenable to local inhibition of C1q. As described above, we believe inhibition of C1q would block all key components of the classical cascade, including C1q, C4, C3 involved in immune cell attack and synapse pruning, as well as C5 involved in direct membrane damage.



* $p < 0.05$

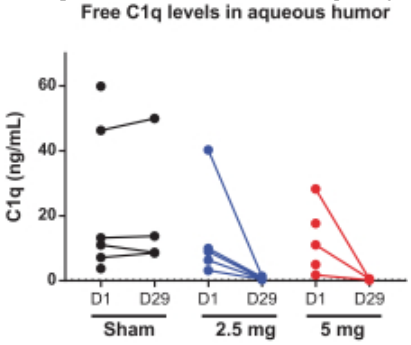
Development of ANX007 for Ophthalmic Diseases

We have completed a Phase 1b trial of ANX007 in patients with glaucoma. Based on our Phase 1b clinical results in glaucoma, our preclinical data showing protection in three retinal neurodegeneration animal models (glaucoma, optic neuritis and GA), and our knowledge of C1q biology in this setting, we are planning a Phase 2 trial in GA in 2020. Our rationale to pursue ANX007 for GA includes:

- The classical complement pathway is implicated in GA by human genetics, as C1q and C4 are associated with pathology in human GA tissue. C1q is produced locally in the eye by infiltrating immune cells and may be more amenable to local inhibition by intravitreal administration of ANX007.
- The potential role of C1q in GA may be dual-purpose, resulting in both complement-mediated neurodegeneration and localized tissue damage unique to the eye. Local administration of ANX007 has been shown to be protective in animal photoreceptor neuron loss and achieved complete C1q inhibition in patients for 1-2 months.
- There is a well-established clinical and regulatory path for development.

Phase 1b Trial in Glaucoma

We completed single ascending dose (n=9) and sham-controlled multiple dose (n=17) studies of intravitreal ANX007 in patients with glaucoma, to evaluate safety, tolerability, pharmacokinetics and target engagement. These patients had aqueous humor taps so that ocular fluid could be analyzed for levels of ANX007 and free C1q immediately prior to first dose (day 1) and prior to second dose (day 29). The studies showed that ANX007 was well-tolerated at all doses (1 mg, 2.5 mg, 5 mg), and achieved complete suppression of C1q at 2.5 mg and 5 mg, as illustrated below. We believe these results suggest that ANX007 can be dosed monthly or potentially less frequently in future Phase 2 efficacy trials in glaucoma or geographic atrophy. We are exploring further development of ANX007 that could enable patients to be dosed as infrequently as every six months.



Planned Phase 2 Trial in Geographic Atrophy

We are planning a randomized, controlled Phase 2 trial in GA patients who are at a high risk of progression. Prior natural history data similar to that found in other recent large Phase 3 trials may provide a wealth of natural history data from nearly 2,000 patients on how to successfully enrich fast progressors of GA to enable an efficacy read-out within a one-year time period. Our Phase 2 trial is designed to show clinical effect on slowing of GA lesion growth, leveraging the natural history data and patient selection criteria of prior GA trials.

Our Third Product Candidate, ANX009

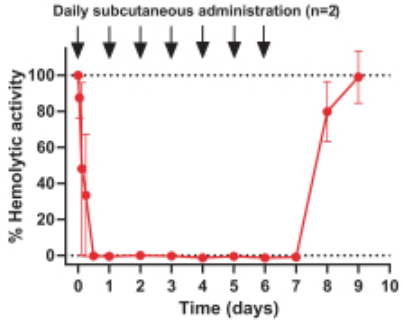
ANX009 is designed to potently bind to C1q and inhibit activation of the classical complement cascade. ANX009 is designed for subcutaneous delivery, and we are currently evaluating the product candidate in preclinical toxicology studies. We intend to advance ANX009 through IND-enabling studies, select our initial lead autoimmune disease indication and commence a clinical trial in healthy volunteers in 2020.

Future ANX009 Indications

We are developing ANX009 to potentially enable chronic dosing in autoimmune hemolytic anemias, such as warm autoimmune hemolytic anemia, or wAIHA, and cold agglutinin disease, or CAD. In addition, we are evaluating ANX009 as a chronic treatment option for a subset of lupus nephritis patients who are at a high risk of renal flare due to pathogenic anti-C1q antibodies in the circulation, and who may likely respond to treatment with our anti-C1q approach.

We have observed that daily subcutaneous administration of ANX009 fully inhibited C1q functional activity in the serum of non-human primates. Its activity occurred rapidly after the first dose and this activity rapidly reversed after dosing was stopped.

Daily subcutaneous administration of ANX009
fully inhibits C1q in the circulation of non-human primates



We believe that ANX009's inhibitory activity and its on/off function may benefit patients with hematological autoimmune disorders.

Intellectual Property

Our intellectual property is critical to our business and we strive to protect it, including by obtaining and maintaining patent protection in the United States and internationally for our product candidates, new therapeutic approaches and potential indications, and other inventions that are important to our business. Our policy is to seek to protect our proprietary and intellectual property position by, among other methods, filing U.S. and foreign patent applications related to our proprietary technology, inventions and improvements that are important for the development and implementation of our business. We also rely on the skills, knowledge and experience of our scientific and technical personnel, as well as that of our advisors, consultants and other contractors. To help protect our proprietary know-how that is not patentable, we rely on confidentiality agreements to protect our interests. We generally require our employees, consultants, scientific advisors and contractors to enter into confidentiality agreements prohibiting the disclosure of confidential information and requiring disclosure and assignment to us of the ideas, developments, discoveries and inventions important to our business.

Our patent portfolio includes patents and patent applications that are licensed to us in whole or in part from a number of partners, including Stanford University and the University of California, and patents and patent applications that are owned by us. Our proprietary technology has been primarily developed by in-house research and development programs, and to a lesser extent through acquisitions, relationships with academic research centers and contract research organizations.

For our product candidates, we will, in general, initially pursue patent protection covering compositions of matter and methods of use. Throughout the development of our product candidates, we seek to identify additional means of obtaining patent protection that would potentially enhance commercial success, including by protecting inventions related to additional methods of use, processes of making, formulation and dosing regimens.

We hold worldwide development and commercialization rights to all of our product candidates, which allow us to strategically maximize value from our product portfolio over time. Our patent portfolio includes patent protection for our upstream complement platform and each of our product candidates. In total, our patent portfolio, including patents licensed from our partners, comprises 10 different patent families as of August 30, 2019, filed in various jurisdictions worldwide. Our patent portfolio includes issued patents and patent applications in the United States and in many international countries.

One patent family, which we license from Stanford University, includes nine granted U.S. patents covering various methods of treating neurodegeneration and related medical conditions by inhibiting the C1 complex or its components, such as by using an anti-C1q antibody. The U.S. patents in this family, which include claims broadly covering uses of ANX005 and ANX007, expire between 2026 and 2030. There are no pending applications or foreign patents in this family.

Two other patent families, which we own, are directed to anti-C1q antibodies and methods of using them. These families include three granted U.S. patents, two pending U.S. patent applications, one granted foreign patent and 30 pending foreign patent applications. The granted patents in these families cover ANX005 and ANX007 and expire between 2034 and 2037. Another patent family that we own, which includes one pending U.S. patent application and 13 pending foreign patent applications, includes claims directed to antibody fragments of anti-C1q antibodies, including ANX007, and methods of using them. Patents that may be issued from these applications would expire in 2036, absent any disclaimers, extensions or adjustments of patent term.

Our patent portfolio also includes four patent families, owned by us solely or jointly with the University of California, directed to the treatment of certain medical conditions using anti-C1q antibodies, including ANX005 and ANX007. These families include four pending U.S. patent applications and 14 foreign patent applications. Patents that may be issued based on these applications would expire between 2034 and 2039, absent any disclaimers, extensions or adjustments of patent term.

Exclusive (Equity) Agreement with The Board of Trustees of the Leland Stanford Junior University

In November 2011, we and The Board of Trustees of the Leland Stanford Junior University, or Stanford, entered into an exclusive licensing agreement, or the Stanford Agreement. Under the Stanford Agreement, Stanford granted to us an exclusive, worldwide, royalty-bearing, sublicensable license, under certain patent rights, or the Licensed Patents, to make, use, offer for sale, sell, import and otherwise commercialize products covered by the Licensed Patents for human or animal diseases, disorders or conditions. We are required to meet certain development and funding diligence milestones for the licensed products.

Under the Stanford Agreement, we are obligated to pay Stanford an upfront payment, license maintenance fees ranging from the single digit to tens of thousands of dollars per year, and milestone payments totaling up to $675,000. We also agreed to make royalty payments at a rate equal to a low single-digit percentage of worldwide net sales of licensed products and a portion of certain sublicensing income we receive from sublicensees at a rate in the low double digit percentages, subject to a specified maximum total payment. Additionally, in accordance with the terms of the Stanford Agreement, upon closing our first financing event that raised at least $2.0 million, we granted Stanford $150,000 in shares of our redeemable convertible preferred stock. We may also have to pay a fee to Stanford if we assign our rights under the Stanford Agreement to a third party.

We may terminate the Stanford Agreement in its entirety, or as to a particular Licensed Patent or licensed product, for convenience on thirty days' prior written notice. Stanford may terminate the Stanford Agreement for our breach that remains uncured for forty-five days or if we provide any false report, are delinquent on any report or payment, fail to achieve a milestone or fail to diligently develop and commercialize a licensed product.

Patent Term and Term Extensions

The terms of individual patents are determined based primarily on the date of filing of the patent application or the date of patent issuance and the legal term of patents in the countries in which they are obtained. Generally,

utility patents issued for applications filed in the United States are granted a term of 20 years from the earliest effective filing date of a non-provisional patent application. In addition, in certain instances, the term of a U.S. patent can be extended to recapture a portion of the United States Patent and Trademark Office, or USPTO, delay in issuing the patent as well as a portion of the term effectively lost as a result of the FDA regulatory review period. However, as to the FDA component, the restoration period cannot be longer than five years and the restoration period cannot extend the patent term beyond 14 years from FDA approval for the product covered by that patent. In addition, only one patent applicable to an approved drug may receive the extension, and the extension applies only to coverage for the approved drug, methods for using it and methods of manufacturing it, even if the claims cover other products or product candidates. Where one patent covers multiple products or product candidates, it may only receive an extension for one of the covered products; any extension related to a second product or product candidate must be applied to a different patent. The duration of foreign patents varies in accordance with provisions of applicable local law, but typically is also 20 years from the earliest effective filing date of a non-provisional patent application, such as a Patent Cooperation Treaty, or PCT, application. All taxes, annuities or maintenance fees for a patent, as required by the USPTO and various foreign jurisdictions, must be timely paid in order for the patent to remain in force during this period of time.

The actual protection afforded by a patent may vary on a product by product basis, from country to country, and can depend upon many factors, including the type of patent, the scope of its coverage, the availability of regulatory-related extensions and the availability of legal remedies in a particular country and the validity and enforceability of the patent.

Our patents and patent applications may be subject to procedural or legal challenges by others. We may be unable to obtain, maintain and protect the intellectual property rights necessary to conduct our business, and we may be subject to claims that we infringe or otherwise violate the intellectual property rights of others, which could materially harm our business. For more information, see the section titled “Risk Factors—Risks Related to Our Intellectual Property.”

Trademarks and Know-How

In connection with the ongoing development and advancement of our products and services in the United States and various international jurisdictions, we seek to create protection for our marks and enhance their value by pursuing trademarks and service marks where available and when appropriate. In addition to patent and trademark protection, we rely upon know-how and continuing technological innovation to develop and maintain our competitive position. We seek to protect our proprietary information, in part, by using confidentiality agreements with our commercial partners, collaborators, employees and consultants, and invention assignment agreements with our employees and consultants. These agreements are designed to protect our proprietary information and, in the case of the invention assignment agreements, to grant us ownership of technologies that are developed by our employees and through relationships with third parties. These agreements may be breached, and we may not have adequate remedies for any breach. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. To the extent that our contractors, commercial partners, collaborators, employees and consultants use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions. For more information, see the section titled “Risk Factors—Risks Related to Our Intellectual Property.”

Sales and Marketing

We hold worldwide commercialization rights to our product candidates. Given our stage of development, we have not yet established a commercial organization or distribution capabilities. Should any of our product candidates be approved for commercialization, we intend to develop a plan to commercialize them in the United States and other key markets, through internal infrastructure and/or external partnerships in a manner that will enable us to realize the full commercial value of our programs.

Manufacturing

Our success as a company will depend on our ability to deliver reliable, high-quality preclinical and clinical drug supply. We do not currently own or operate facilities for product manufacturing, storage and distribution, or testing. We contract with third parties for the manufacture of our product candidates. Because we rely on contract manufacturers, we employ personnel with extensive technical, manufacturing, analytical and quality experience. Our staff has strong project management discipline to oversee contract manufacturing and testing activities, and to compile manufacturing and quality information for our regulatory submissions.

Manufacturing is subject to extensive regulation that imposes various procedural and documentation requirements and that governs record keeping, manufacturing processes and controls, personnel, quality control and quality assurance, and more. Our systems and our contractors are required to be in compliance with these regulations, and compliance is assessed regularly through monitoring of performance and a formal audit program.

Our current supply chains for our lead drug candidates involve several manufacturers that specialize in specific operations of the manufacturing process, specifically, raw materials manufacturing, drug substance manufacturing and drug product manufacturing. We currently operate under work order programs for our drug candidates with master services agreements in place that include specific supply timelines, volume and quality specifications. We intend to establish long-term supply agreements in the future. We believe our current manufacturers have the scale, the system, and the experience to supply our currently planned clinical trials.

We do not currently require commercial manufacturing capabilities. Should our needs change, we will need to scale up our manufacturing processes to enable commercial launch. To ensure continuity in our supply chain, we plan to establish supply arrangements with alternative larger scale suppliers for certain portions of our supply chain, as appropriate.

Competition

The pharmaceutical, biopharmaceutical and biotechnology industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. While we believe that our technology, the expertise of our executive and scientific team, research, clinical capabilities, development experience and scientific knowledge provide us with competitive advantages, we face potential competition from many different sources, including pharmaceutical, biopharmaceutical and biotechnology companies, academic institutions, governmental agencies and public and private research institutions. Product candidates that we successfully develop and commercialize may compete with existing therapies and new therapies that may become available in the future.

Our competitors may have significantly greater financial resources, established presence in the market, expertise in research and development, manufacturing, preclinical and clinical testing, obtaining regulatory approvals and reimbursement and marketing approved products than we do. These competitors also compete with us in recruiting and retaining qualified scientific, sales, marketing and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

Guillain-Barré Syndrome

There are currently no approved therapies for GBS in the United States. IVIg and plasma exchange are the current standard of care in the Western world and parts of Asia. Hansa Biopharma AB began an open label Phase 2 trial in GBS patients in the second quarter of 2019.

Warm Autoimmune Hemolytic Anemia

There are currently no approved therapies for wAIHA in the United States. Apellis is running a Phase 2 clinical trial using APL-2 in cold agglutinin diseases, or CADs, and wAIHA. Other companies who are running clinical trials in these rare anemias include Alexion in Phase 2 with SYNT001 and Rigel in Phase 3 with Fostamatinib.

Huntington's Disease

There are no known cures for HD. Companies such as Ionis, Takeda, Wave Life Sciences, Voyager Therapeutics, uniQure and Hoffman La Roche are conducting clinical trials with products that are gene silencing in order to attempt to lower the level of the mutant huntingtin protein in patients to investigate whether this will translate to benefits for people with HD.

Amyotrophic Lateral Sclerosis

There are no known cures for ALS. The drug riluzole is currently approved for treatment and has shown modest affect in slowing the progression of the disease. We are aware that Alexion may begin an exploratory Phase 2 trial of Ultomiris, a long acting C5 inhibitor for ALS. There are many companies conducting clinical trials in ALS patients including MediciNova, Astellas, Biogen, Mitsubishi Tanabe, Ono Pharmaceuticals and others.

Glaucoma

There are many approved treatments to relieve increased intraocular pressure in glaucoma. There are no FDA-approved treatments currently available for the retinal degeneration that is observed in glaucoma patients.

Geographic Atrophy

No FDA-approved treatment is currently available for GA. We are aware of a number of companies developing products for the treatment of GA. Those products in clinical development include: CLG561, an anti-properdin monoclonal antibody in Phase 2 trials as a single agent and in combination with LFG316, an anti-C5 antibody being developed by Novartis AG; and Zimura, a C5 inhibitor in Phase 2/3 clinical trials, is being developed by IVERIC bio, previously Ophthotech Corporation. Other products that do not target the complement cascade that are in Phase 2 clinical trials are being developed by Allergan PLC and Regenerative Patch Technologies.

Government Regulation

The FDA and other regulatory authorities at federal, state and local levels, as well as in foreign countries, extensively regulate, among other things, the research, development, testing, manufacture, quality control, import, export, safety, effectiveness, labeling, packaging, storage, distribution, record keeping, approval, advertising, promotion, marketing, post-approval monitoring and post-approval reporting of biological product candidates such as those we are developing. We, along with third-party contractors, will be required to navigate the various preclinical, clinical and commercial approval requirements of the governing regulatory agencies of the countries in which we wish to conduct studies or seek approval or licensure of our product candidates. The process of obtaining regulatory approvals and the subsequent compliance with applicable federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources.

U.S. Biologics Regulation

In the United States, our product candidates are regulated as biologic pharmaceuticals, or biologics. The process required by the FDA before biologic product candidates may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests and animal studies performed in accordance with the FDA's Good Laboratory Practice requirements, or GLPs;
- submission to the FDA of an Investigational New Drug application, or IND, which must become effective before clinical trials may begin;
- approval by an institutional review board, or IRB, or ethics committee at each clinical site before the trial is commenced;
- performance of adequate and well-controlled human clinical trials to establish the safety, purity and potency of the proposed biologic product candidate for its intended purpose;
- preparation of and submission to the FDA of a biologics license application, or BLA, after completion of all pivotal clinical trials;
- satisfactory completion of an FDA Advisory Committee review, if applicable;
- a determination by the FDA within 60 days of its receipt of a BLA to file the application for review;
- satisfactory completion of an FDA pre-approval inspection of the manufacturing facility or facilities at which the proposed products is produced to assess compliance with current Good Manufacturing Practices, or cGMP, and to assure that the facilities, methods and controls are adequate to preserve the biological product's continued safety, purity and potency, and of selected clinical investigation sites to assess compliance with Good Clinical Practices, or GCPs; and
- FDA review and approval of the BLA to permit commercial marketing of the product for particular indications for use in the United States.

Prior to beginning the first clinical trial with a product candidate in the United States, we must submit an IND to the FDA. An IND is a request for authorization from the FDA to administer an investigational new drug product to humans. The central focus of an IND submission is on the general investigational plan and the protocol(s) for clinical trials. The IND also includes results of animal and in vitro studies assessing the toxicology, pharmacokinetics, pharmacology and pharmacodynamic characteristics of the product; chemistry, manufacturing and controls information; and any available human data or literature to support the use of the investigational product. An IND must become effective before human clinical trials may begin. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, raises safety concerns or questions about the proposed clinical trial. In such a case, the IND may be placed on clinical hold and the IND sponsor and the FDA must resolve any outstanding concerns or questions before the clinical trial can begin. Submission of an IND therefore may or may not result in FDA authorization to begin a clinical trial.

Clinical trials involve the administration of the investigational product to human subjects under the supervision of qualified investigators in accordance with GCPs, which include the requirement that all research subjects provide their informed consent for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the study, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. A separate submission to the existing IND must be made for each successive clinical trial conducted during product development and for any subsequent protocol amendments. Furthermore, an independent IRB for each site proposing to conduct the clinical trial must review and approve the plan for any clinical trial and its informed consent form before the clinical trial begins at that site and must monitor the trial until completed. Regulatory authorities, the IRB or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the subjects are being exposed to an unacceptable

health risk or that the trial is unlikely to meet its stated objectives. Some studies also include oversight by an independent group of qualified experts organized by the clinical trial sponsor, known as a data safety monitoring board, which provides authorization for whether or not a trial may move forward at designated check points based on access to certain data from the study and may halt the clinical trial if it determines that there is an unacceptable safety risk for subjects or other grounds, such as no demonstration of efficacy. There are also requirements governing the reporting of ongoing clinical trials and clinical trial results to public registries.

For purposes of BLA approval, human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- Phase 1—The investigational product is initially introduced into healthy human subjects or patients with the target disease or condition. These trials are designed to test the safety, dosage tolerance, absorption, metabolism and distribution of the investigational product in humans, the side effects associated with increasing doses, and, if possible, to gain early evidence on effectiveness.
- Phase 2—The investigational product is administered to a limited patient population with a specified disease or condition to evaluate the preliminary efficacy, optimal dosages and dosing schedule and to identify possible adverse side effects and safety risks. Multiple Phase 2 clinical trials may be conducted to obtain information prior to beginning larger and more expensive Phase 3 clinical trials.
- Phase 3—The investigational product is administered to an expanded patient population to further evaluate dosage, to provide statistically significant evidence of clinical efficacy and to further test for safety, generally at multiple geographically dispersed clinical trial sites. These clinical trials are intended to establish the overall risk/benefit ratio of the investigational product and to provide an adequate basis for product approval.

In some cases, the FDA may require, or companies may voluntarily pursue, additional clinical trials after a product is approved to gain more information about the product. These so-called Phase 4 trials may also be made a condition to approval of the BLA.

Concurrent with clinical trials, companies may complete additional animal studies and develop additional information about the biological characteristics of the product candidate and must finalize a process for manufacturing the product in commercial quantities in accordance with cGMP. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, must develop methods for testing the identity, strength, quality and purity of the final product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the product candidate does not undergo unacceptable deterioration over its shelf life.

BLA Submission and Review by the FDA

Assuming successful completion of all required testing in accordance with all applicable regulatory requirements, the results of product development, nonclinical studies and clinical trials are submitted to the FDA as part of a BLA requesting approval to market the product for one or more indications. The BLA must include all relevant data available from preclinical studies and clinical trials, including negative or ambiguous results as well as positive findings, together with detailed information relating to the product's chemistry, manufacturing, controls and proposed labeling, among other things. Data can come from company-sponsored clinical trials intended to test the safety and effectiveness of a use of the product or from a number of alternative sources, including studies and trials initiated by investigators. The submission of a BLA requires payment of a substantial user fee to the FDA, and the sponsor of an approved BLA is also subject to an annual program fee. A waiver of user fees may be obtained under certain limited circumstances. Additionally, no user fees are assessed on BLAs for products designated as orphan drugs, unless the product also includes a non-orphan indication.

Once a BLA has been submitted, the FDA's goal is to review standard applications within ten months after it accepts the application for filing, or, if the application qualifies for priority review, six months after the FDA

accepts the application for filing. Priority review designation will direct overall attention and resources to the evaluation of applications for products that, if approved, would be significant improvements in the safety or effectiveness of the treatment, diagnosis or prevention of serious conditions. In both standard and priority reviews, the review process is often significantly extended by FDA requests for additional information or clarification. The FDA reviews a BLA to determine, among other things, whether a product is safe, pure and potent and the facility in which it is manufactured, processed, packed or held meets standards designed to assure the product's continued safety, purity and potency. The FDA may also convene an advisory committee to provide clinical insight on application review questions. The FDA is not bound by recommendations of an advisory committee, but it considers such recommendations when making decisions regarding approval.

Before approving a BLA, the FDA will typically inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with and adequate to assure consistent production of the product within required specifications. Additionally, before approving a BLA, the FDA will typically inspect one or more clinical sites to assure compliance with GCP. If the FDA determines that the application, manufacturing process or manufacturing facilities are not acceptable, it will outline the deficiencies in the submission and often will request additional testing or information. Notwithstanding the submission of any requested additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval.

After the FDA evaluates a BLA and conducts inspections of manufacturing facilities where the investigational product and/or its drug substance will be produced, the FDA may issue an approval letter or a Complete Response Letter. An approval letter authorizes commercial marketing of the product with specific prescribing information for specific indications. A Complete Response Letter will describe all of the deficiencies that the FDA has identified in the BLA, except that where the FDA determines that the data supporting the application are inadequate to support approval, the FDA may issue the Complete Response Letter without first conducting required inspections, testing submitted product lots, and/or reviewing proposed labeling. In issuing the Complete Response Letter, the FDA may recommend actions that the applicant might take to place the BLA in condition for approval, including requests for additional information or clarification. The FDA may delay or refuse approval of a BLA if applicable regulatory criteria are not satisfied, require additional testing or information and/or require post-marketing testing and surveillance to monitor safety or efficacy of a product.

If regulatory approval of a product is granted, such approval will be granted for particular indications and may entail limitations on the indicated uses for which such product may be marketed. For example, the FDA may approve the BLA with a Risk Evaluation and Mitigation Strategy, or REMS, to ensure the benefits of the product outweigh its risks. A REMS is a safety strategy to manage a known or potential serious risk associated with a medicine and to enable patients to have continued access to such medicines by managing their safe use, and could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries, and other risk minimization tools. The FDA also may condition approval on, among other things, changes to proposed labeling or the development of adequate controls and specifications. Once approved, the FDA may withdraw the product approval if compliance with pre- and post-marketing requirements is not maintained or if problems occur after the product reaches the marketplace. The FDA may also require one or more Phase IV post-market studies and surveillance to further assess and monitor the product's safety and effectiveness after commercialization, and may limit further marketing of the product based on the results of these post-marketing studies. In addition, new government requirements, including those resulting from new legislation, may be established, or the FDA's policies may change, which could impact the timeline for regulatory approval or otherwise impact ongoing development programs.

Expedited Development and Review Programs

A sponsor may seek approval of its product candidate under programs designed to accelerate FDA's review and approval of new drugs and biological products that meet certain criteria. Specifically, new drugs and

biological products are eligible for fast track designation if they are intended to treat a serious or life-threatening disease or condition and demonstrate the potential to address unmet medical needs for the disease or condition. For a fast track product, the FDA may consider sections of the BLA for review on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the application, the FDA agrees to accept sections of the application and determines that the schedule is acceptable and the sponsor pays any required user fees upon submission of the first section of the application. A fast track designated product candidate may also qualify for priority review, under which the FDA sets the target date for FDA action on the BLA at six months after the FDA accepts the application for filing. Priority review is granted when there is evidence that the proposed product would be a significant improvement in the safety or effectiveness of the treatment, diagnosis, or prevention of a serious disease or condition. If criteria are not met for priority review, the application is subject to the standard FDA review period of 10 months after FDA accepts the application for filing. Priority review does not change the scientific/medical standard for approval or the quality of evidence necessary to support approval.

Under the accelerated approval program, the FDA may approve a BLA on the basis of either a surrogate endpoint that is reasonably likely to predict clinical benefit or a clinical endpoint that can be measured earlier than irreversible morbidity or mortality that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity or prevalence of the condition and the availability or lack of alternative treatments. Post-marketing studies or completion of ongoing studies after marketing approval are generally required to verify the biologic's clinical benefit in relationship to the surrogate endpoint or ultimate outcome in relationship to the clinical benefit. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product. The FDA may withdraw approval of a drug or indication approved under accelerated approval if, for example, the confirmatory trial fails to verify the predicted clinical benefit of the product.

In addition, a sponsor may seek FDA designation of its product candidate as a breakthrough therapy if the product candidate is intended, alone or in combination with one or more other drugs or biologics, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the therapy may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. If the FDA designates a product candidate as a breakthrough therapy, it may take actions appropriate to expedite the development and review of the application, which may include holding meetings with the sponsor and the review team throughout the development of the therapy; providing timely advice to, and interactive communication with, the sponsor regarding the development of the drug to ensure that the development program to gather the nonclinical and clinical data necessary for approval is as efficient as practicable; involving senior managers and experienced review staff, as appropriate, in a collaborative, cross-disciplinary review; assigning a cross-disciplinary project lead for the FDA review team to facilitate an efficient review of the development program and to serve as a scientific liaison between the review team and the sponsor; and considering alternative clinical trial designs when scientifically appropriate, which may result in smaller trials or more efficient trials that require less time to complete and may minimize the number of patients exposed to a potentially less efficacious treatment. Breakthrough therapy designation comes with all of the benefits of Fast Track designation.

Fast Track designation, priority review, accelerated approval and breakthrough therapy designation do not change the standards for approval but may expedite the development or approval process. Even if a product qualifies for one or more of these programs, the FDA may later decide that the product no longer meets the conditions for qualification or decide that the time period for FDA review or approval will not be shortened.

Orphan Drug Designation and Exclusivity

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biologic intended to treat a rare disease or condition, defined as a disease or condition with a patient population of fewer than 200,000

individuals in the United States, or a patient population greater than 200,000 individuals in the United States and when there is no reasonable expectation that the cost of developing and making available the drug or biologic in the United States will be recovered from sales in the United States for that drug or biologic. Orphan drug designation must be requested before submitting a BLA. After the FDA grants orphan drug designation, the generic identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA.

If a product that has orphan drug designation subsequently receives the first FDA approval for a particular active ingredient for the disease for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications, including a full BLA, to market the same biologic for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan drug exclusivity or if the FDA finds that the holder of the orphan drug exclusivity has not shown that it can assure the availability of sufficient quantities of the orphan drug to meet the needs of patients with the disease or condition for which the drug was designated. Orphan drug exclusivity does not prevent the FDA from approving a different drug or biologic for the same disease or condition, or the same drug or biologic for a different disease or condition. Among the other benefits of orphan drug designation are tax credits for certain research and a waiver of the BLA application user fee.

A designated orphan drug many not receive orphan drug exclusivity if it is approved for a use that is broader than the indication for which it received orphan designation. In addition, orphan drug exclusive marketing rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or, as noted above, if the second applicant demonstrates that its product is clinically superior to the approved product with orphan exclusivity or the manufacturer of the approved product is unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition.

Post-Approval Requirements

Any products manufactured or distributed by us pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to record-keeping, reporting of adverse experiences, periodic reporting, product sampling and distribution, and advertising and promotion of the product. After approval, most changes to the approved product, such as adding new indications or other labeling claims, are subject to prior FDA review and approval. There also are continuing, annual program fees for any marketed products. Biologic manufacturers and their subcontractors are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP, which impose certain procedural and documentation requirements upon us and our third-party manufacturers. Changes to the manufacturing process are strictly regulated, and, depending on the significance of the change, may require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting requirements upon us and any third-party manufacturers that we may decide to use. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain compliance with cGMP and other aspects of regulatory compliance.

The FDA may withdraw approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical studies to assess new safety risks; or imposition of distribution restrictions or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- fines, warning letters, or untitled letters;

- clinical holds on clinical studies;
- refusal of the FDA to approve pending applications or supplements to approved applications, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products;
- consent decrees, corporate integrity agreements, debarment or exclusion from federal healthcare programs;
- mandated modification of promotional materials and labeling and the issuance of corrective information;
- the issuance of safety alerts, Dear Healthcare Provider letters, press releases and other communications containing warnings or other safety information about the product; or
- injunctions or the imposition of civil or criminal penalties.

The FDA closely regulates the marketing, labeling, advertising and promotion of biologics. A company can make only those claims relating to safety and efficacy, purity and potency that are approved by the FDA and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses. Failure to comply with these requirements can result in, among other things, adverse publicity, warning letters, corrective advertising and potential civil and criminal penalties. Physicians may prescribe legally available products for uses that are not described in the product's labeling and that differ from those tested by us and approved by the FDA. Such off-label uses are common across medical specialties. Physicians may believe that such off-label uses are the best treatment for many patients in varied circumstances. The FDA does not regulate the behavior of physicians in their choice of treatments. The FDA does, however, restrict manufacturer's communications on the subject of off-label use of their products.

Biosimilars and Exclusivity

The ACA, signed into law in 2010, includes a subtitle called the BPCIA, which created an abbreviated approval pathway for biological products that are biosimilar to or interchangeable with an FDA-licensed reference biological product. The FDA has issued several guidance documents outlining an approach to review and approval of biosimilars. Biosimilarity, which requires that there be no clinically meaningful differences between the biological product and the reference product in terms of safety, purity and potency, can be shown through analytical studies, animal studies and a clinical study or studies. Interchangeability requires that a product is biosimilar to the reference product and the product must demonstrate that it can be expected to produce the same clinical results as the reference product in any given patient and, for products that are administered multiple times to an individual, the biologic and the reference biologic may be alternated or switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic. However, complexities associated with the larger, and often more complex, structures of biological products, as well as the processes by which such products are manufactured, pose significant hurdles to implementation of the abbreviated approval pathway that are still being developed by the FDA.

Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until four years following the date that the reference product was first licensed by the FDA. In addition, the approval of a biosimilar product may not be made effective by the FDA until 12 years from the date on which the reference product was first licensed. During this 12-year period of exclusivity, another company may still market a competing version of the reference product if the FDA approves a full BLA for the competing product containing that applicant's own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of its product. The BPCIA also created certain exclusivity periods for biosimilars approved as interchangeable products. At this juncture, it is unclear whether products deemed "interchangeable" by the FDA will, in fact, be readily substituted by pharmacies, which are governed by state pharmacy law.

A biological product can also obtain pediatric market exclusivity in the United States. Pediatric exclusivity, if granted, adds six months to existing exclusivity periods and patent terms. This six-month exclusivity, which runs from the end of other exclusivity protection or patent term, may be granted based on the voluntary completion of a pediatric study in accordance with an FDA-issued "Written Request" for such a study.

The BPCIA is complex and continues to be interpreted and implemented by the FDA. In addition, government proposals have sought to reduce the 12-year reference product exclusivity period. Other aspects of the BPCIA, some of which may impact the BPCIA exclusivity provisions, have also been the subject of recent litigation. As a result, the ultimate impact, implementation and impact of the BPCIA is subject to significant uncertainty.

Other Healthcare Laws and Compliance Requirements

Pharmaceutical companies are subject to additional healthcare regulation and enforcement by the federal government and by authorities in the states and foreign jurisdictions in which they conduct their business. Such laws include, without limitation, U.S. federal and state fraud and abuse laws, including anti-kickback, false claims, civil monetary penalties laws and consumer protection and transparency laws as well as similar foreign laws in the jurisdictions outside the United States. For example, the federal Anti-Kickback Statute prohibits, among other things, individuals or entities from knowingly and willfully offering, paying, soliciting or receiving remuneration, directly or indirectly, overtly or covertly, in cash or in kind to induce or in return for purchasing, leasing, ordering or arranging for or recommending the purchase, lease or order of any item or service reimbursable under Medicare, Medicaid or other federal healthcare programs. A person or entity does not need to have actual knowledge of this statute or specific intent to violate it in order to have committed a violation. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the civil False Claims Act and the civil monetary penalties statute. The federal civil and criminal false claims laws, including the civil False Claims Act, prohibit, among other things, any individual or entity from knowingly presenting, or causing to be presented, a false claim for payment to the federal government or knowingly making, using or causing to be made or used a false record or statement material to a false or fraudulent claim to the federal government. The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, created additional federal civil and criminal statutes that prohibit, among other things, knowingly and willfully executing a scheme to defraud any healthcare benefit program. Similar to the U.S. federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the healthcare fraud statute implemented under HIPAA or specific intent to violate it in order to have committed a violation. The federal Physician Payments Sunshine Act requires certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, with specific exceptions, to report annually to Centers for Medicare & Medicaid Services, or CMS, information related to payments or other transfers of value made to physicians and teaching hospitals, and applicable manufacturers and applicable group purchasing organizations to report annually to CMS ownership and investment interests held by physicians and their immediate family members.

Similar state and local laws and regulations may also restrict business practices in the pharmaceutical industry, such as state anti-kickback and false claims laws, which may apply to business practices, including but not limited to, research, distribution, sales and marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers, or by patients themselves; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state laws and regulations that require drug manufacturers to file reports relating to pricing and marketing information or that require tracking gifts and other remuneration and items of value provided to physicians, other healthcare providers and entities; state and local laws that require the registration of pharmaceutical sales representatives; and state and local laws governing the privacy and security of health information in some circumstances, many of

which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts. Violation of any of such laws or any other governmental regulations that apply may result in penalties, including, without limitation, significant administrative, civil and criminal penalties, damages, fines, disgorgement, additional reporting obligations, contractual damages, the curtailment or restructuring of operations, exclusion from participation in governmental healthcare programs and individual imprisonment.

Data Privacy and Security Laws

Pharmaceutical, biopharmaceutical and biotechnology companies may be subject to U.S. federal and state health information privacy, security and data breach notification laws, which may govern the collection, use, disclosure and protection of health-related and other personal information. State laws may be more stringent, broader in scope or offer greater individual rights with respect to protected health information, or PHI, than HIPAA, and state laws may differ from each other, which may complicate compliance efforts. Entities that are found to be in violation of HIPAA as the result of a breach of unsecured PHI, a complaint about privacy practices or an audit by the Department of Health and Human Services, or HHS, may be subject to significant civil, criminal and administrative fines and penalties and/or additional reporting and oversight obligations if required to enter into a resolution agreement and corrective action plan with HHS to settle allegations of HIPAA non-compliance. In addition, California enacted the California Consumer Privacy Act, or CCPA, which creates individual privacy rights for California consumers and increases the privacy and security obligations of entities handling certain personal data. The CCPA goes into effect on January 1, 2020, and the California Attorney General may bring enforcement actions for violations beginning July 1, 2020. The CCPA has been amended from time to time, and it remains unclear what, if any, further modifications will be made to this legislation or how it will be interpreted.

European Union member states, the United Kingdom, Switzerland and other jurisdictions have also adopted data protection laws and regulations, which impose significant compliance obligations. In the EEA and the United Kingdom, the collection and use of personal data, including clinical trial data, is governed by the provisions of the General Data Protection Regulation, or GDPR. The GDPR became effective on May 25, 2018, repealing its predecessor directive and increasing responsibility and liability of pharmaceutical companies in relation to the processing of personal data of EU data subjects. The GDPR, together with national legislation, regulations and guidelines of the EU member states and the United Kingdom governing the processing of personal data, impose strict obligations and restrictions on the ability to collect, analyze and transfer personal data, including health data from clinical trials and adverse event reporting. In particular, these obligations and restrictions concern the consent of the individuals to whom the personal data relates, the information provided to the individuals, the transfer of personal data out of the European Economic Area, or EEA, or the United Kingdom, security breach notifications, security and confidentiality of the personal data and imposition of substantial potential fines for breaches of the data protection obligations. European data protection authorities may interpret the GDPR and national laws differently and impose additional requirements, which add to the complexity of processing personal data in or from the EEA or United Kingdom. Guidance on implementation and compliance practices are often updated or otherwise revised.

Coverage and Reimbursement

Sales of any pharmaceutical product depend, in part, on the extent to which such product will be covered by third-party payors, such as federal, state and foreign government healthcare programs, commercial insurance and managed healthcare organizations, and the level of reimbursement for such product by third-party payors. No uniform policy exists for coverage and reimbursement for products exists among U.S. third-party payors. Therefore, decisions regarding the extent of coverage and amount of reimbursement to be provided are made on a plan-by-plan basis. The process for determining whether a third-party payor will provide coverage for a product typically is separate from the process for setting the price of such product or for establishing the reimbursement rate that the payor will pay for the product once coverage is approved. Third-party payors may limit coverage to specific products on an approved list, also known as a formulary, which might not include all of the

FDA-approved products for a particular indication, or place products at certain formulary levels that result in lower reimbursement levels and higher cost-sharing obligation imposed on patients. One third-party payor's decision to cover a particular medical product or service does not ensure that other payors will also provide coverage for the medical product or service. As a result, the coverage determination process will often require us to provide scientific and clinical support for the use of our product candidates to each payor separately and can be a time-consuming process, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance.

In international markets, reimbursement and healthcare payment systems vary significantly by country, and many countries have instituted price ceilings on specific products and therapies. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. Pharmaceutical products may face competition from lower-priced products in foreign countries that have placed price controls on pharmaceutical products. Furthermore, there can be no assurance that a product will be considered medically reasonable and necessary for a specific indication, that a product will be considered cost-effective by third-party payors, that an adequate level of reimbursement will be established even if coverage is available or that the third-party payors' reimbursement policies will not adversely affect the ability to sell a product profitably.

Healthcare Reform

In the United States and certain foreign jurisdictions, there have been, and we expect there will continue to be, a number of legislative and regulatory changes to the healthcare system. In March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively the ACA, was signed into law, which substantially changed the way healthcare is financed by both governmental and private insurers in the United States and significantly affected the pharmaceutical industry. The ACA contains a number of provisions, including those governing enrollment in federal healthcare programs, reimbursement adjustments and fraud and abuse changes. Additionally, the ACA increased the minimum level of Medicaid rebates payable by manufacturers of brand name drugs from 15.1% to 23.1%; required collection of rebates for drugs paid by Medicaid managed care organizations; required manufacturers to participate in a coverage gap discount program, under which they must agree to offer 70 percent point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D; imposed a non-deductible annual fee on pharmaceutical manufacturers or importers who sell certain "branded prescription drugs" to specified federal government programs; implemented a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected; expanded eligibility criteria for Medicaid programs; created a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and established a Center for Medicare Innovation at CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending.

Since its enactment, there have been judicial and Congressional challenges to certain aspects of the ACA, and we expect there will be additional challenges and amendments to the ACA in the future. For example, in 2017, Congress enacted the Tax Cuts and Jobs Act, which eliminated the tax-based shared responsibility payment imposed by the ACA on certain individuals who fail to maintain qualifying health coverage for all or part of a year that is commonly referred to as the "individual mandate." On December 14, 2018, a U.S. District Court Judge in the Northern District of Texas, or the Texas District Court Judge, ruled that the individual mandate is a critical and inseverable feature of the ACA, and therefore, because it was repealed as part of the Tax Cuts and Jobs Act, the remaining provisions of the ACA are invalid as well. While the Texas U.S. District Court Judge, as

well as the Trump Administration and CMS, have stated that the ruling will have no immediate effect, and on December 30, 2018 the Texas District Court Judge issued an order staying the judgment pending appeal, it is unclear how this decision, subsequent appeal and other efforts to repeal and replace the ACA will impact the ACA.

Other legislative changes have been proposed and adopted since the ACA was enacted, including aggregate reductions of Medicare payments to providers of 2% per fiscal year and reduced payments to several types of Medicare providers, which will remain in effect through 2027 absent additional congressional action. Moreover, there has recently been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in several Congressional inquiries and proposed and enacted legislation designed, among other things, to bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs and reform government program reimbursement methodologies for pharmaceutical products. Further, the Trump Administration released a “Blueprint” to lower drug prices and reduce out of pocket costs of drugs that contains additional proposals to increase drug manufacturer competition, increase the negotiating power of certain federal healthcare programs, incentivize manufacturers to lower the list price of their products, and reduce the out of pocket costs of drug products paid by consumers. Individual states in the United States have also become increasingly active in implementing regulations designed to control pharmaceutical product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures and, in some cases, mechanisms to encourage importation from other countries and bulk purchasing. Furthermore, there has been increased interest by third-party payors and governmental authorities in reference pricing systems and publication of discounts and list prices.

Facilities

Our corporate headquarters are located in South San Francisco, California, where we lease approximately 12,300 square feet of office, research and development, engineering and laboratory space pursuant to a lease agreement which commenced on July 1, 2017 and expires on June 30, 2024 with an option to extend for five years. We believe that our existing facilities are sufficient for our near-term needs but expect to need additional space as we grow. We believe that suitable additional alternative spaces will be available in the future on commercially reasonable terms, if required.

Employees

As of June 30, 2019, we had 18 full-time employees, six of whom were primarily engaged in research and development activities. A total of eight employees have an M.D., Ph.D. or Pharm.D. degree. Substantially all of our employees are located in South San Francisco, California. None of our employees is represented by a labor union, and we consider our employee relations to be good.

Legal Proceedings

We are not currently a party to any material legal proceedings. We may, however, in the ordinary course of business face various claims brought by third parties, and we may, from time to time, make claims or take legal actions to assert our rights, including intellectual property rights as well as claims relating to employment matters and the safety or efficacy of our products. Any of these claims could subject us to costly litigation, and, while we generally believe that we have adequate insurance to cover many different types of liabilities, our insurance carriers may deny coverage, may be inadequately capitalized to pay on valid claims, or our policy limits may be inadequate to fully satisfy any damage awards or settlements. If this were to happen, the payment of any such awards could have a material adverse effect on our operations, cash flows and financial position. Additionally, any such claims, whether or not successful, could damage our reputation and business.

MANAGEMENT

The following table sets forth information regarding our executive officers and directors as of August 30, 2019:

Name	Age	Position(s)
Executive Officers		
Douglas Love, Esq.	52	President, Chief Executive Officer and Director
Sanjay Keswani, MBBS, BSc, FRCP	49	Executive Vice President and Chief Medical Officer
Jennifer Lew	46	Executive Vice President and Chief Financial Officer
Lesley Stolz, Ph.D.	55	Executive Vice President and Chief Business Officer
Ted Yednock, Ph.D.	61	Executive Vice President and Chief Scientific Officer
Non-Employee Directors		
William D. Young	75	Chairman and Director
Emmett Cunningham, M.D., Ph.D., M.P.H.	58	Director
Carol Gallagher, Pharm.D.	55	Director
Campbell Murray, M.D.(4)	43	Director
Muneer A. Satter	58	Director
Ricky Sun, Ph.D.	46	Director
Thomas G. Wiggans	67	Director

(1) Member of our audit committee.
(2) Member of our compensation committee.
(3) Member of our nominating and corporate governance committee.
(4) Dr. Murray is expected to resign from our Board of Directors prior to the effectiveness of the registration statement of which this prospectus is a part.

Executive Officers

Douglas Love, Esq. has served as our President and Chief Executive Officer and as a member of our board of directors since December 2014. Prior to joining Annexon, from 2008 to April 2013, he served as Head of Operations & Strategic Alliances for Elan Pharmaceuticals, Inc., a biopharmaceutical company, where he led the Tysabri® multiple sclerosis franchise, and Elan's Alzheimer's Immunotherapy Program, which was licensed to Johnson & Johnson. From 2006 to 2008, he served as Head of Strategic Alliances, Business Development & Business Integration for Elan. Prior to joining Elan, Mr. Love served as an associate at the law firm Orrick, Herrington & Sutcliffe LLP, Corporate Counsel at Amgen, Inc. and as Section Corporate Counsel at Genentech, Inc., where he led the BioOncology Healthcare Law Group. Mr. Love received a B.S. in business administration from the University of Southern California and a J.D. with great distinction from McGeorge School of Law. We believe that Mr. Love is qualified to serve on our board of directors due to the valuable expertise and perspective he brings in his capacity as our President and Chief Executive Officer and because of his extensive experience and knowledge of our industry.

Sanjay Keswani, MBBS, BSc, FRCP has served as our Executive Vice President and Chief Medical Officer since June 2019. Prior to that, Dr. Keswani was Chief Executive Officer at Rheos Medicines, Inc., a privately-held biopharmaceutical company, from September 2018 to June 2019. From June 2015 to September 2018, Dr. Keswani was Senior Vice President & Global Head of Neuroscience, Ophthalmology and Rare Diseases for the Roche Pharma Research and Early Development division of F. Hoffmann-La Roche Ltd., a publicly-held pharmaceutical company. Prior to Roche, he was Vice President, Exploratory and Clinical Translational Research at Bristol-Myers Squibb Company, a publicly-held pharmaceutical company, where he was responsible for multiple therapeutic areas including Immunology, Neuroscience, Rare Diseases, Fibrosis and Virology from

March 2011 to June 2015. Prior to joining Bristol-Myers Squibb, Dr. Keswani held research and development leadership roles at Eli Lilly & Company, a publicly-held pharmaceutical company, and Amgen Inc., a publicly-held biopharmaceutical company, and also served as Assistant Professor in Neurology at Johns Hopkins University. Dr. Keswani received his MBBS in medicine at St. Bartholomew's Hospital, London and completed his medical residency in Neurology and fellowships in Neuroimmunology and Neurophysiology at Johns Hopkins University School of Medicine. In addition, Dr. Keswani received a first class honors degree from St. Mary's Hospital, London in Pathology & Basic Medical Sciences (Immunology) and was elected as a Fellow of the Royal College of Physicians.

Jennifer Lew has served as our Executive Vice President and Chief Financial Officer since June 2019. Previously, from October 2013 to May 2019, Ms. Lew held various roles at Aduro Biotech, Inc., a publicly-held immunotherapy company, most recently as Chief Financial Officer. Prior to that, Ms. Lew held various roles at Dynavax Technologies Corporation, a publicly-held biopharmaceutical company, from 2004 to October 2013, most recently as Vice President of Finance and Principal Accounting Officer, where she oversaw accounting and finance operations. Prior to joining Dynavax, Ms. Lew held positions as Assistant Controller and Director of Finance at QRS Corporation, a publicly-held technology company, from 2000 to 2004. Ms. Lew was a member of the audit practice at Ernst & Young LLP from 1994 to 1999. She received a B.A. in Economics/Accounting and Government from Claremont McKenna College and is a Certified Public Accountant (inactive).

Lesley Stolz, Ph.D. has served as our Executive Vice President and Chief Business Officer since May 2019. Prior to that, from March 2014 to April 2019, Dr. Stolz was Head of Johnson & Johnson Innovation, where she negotiated transactions and ran the West Coast JLABS business. She has over 20 years of business and corporate development experience working for companies that have been both technology platform and therapeutics focused. Between December 2007 to March 2014, Dr. Stolz has also held executive positions with BioTime, Inc., Sutro Biopharma, Inc. and Sunesis Pharmaceuticals, Inc., where she was responsible for corporate strategy, fundraising and all aspects of partnering. Earlier in her career, she served as Senior Director, Business Development for Aerovance, Inc., GPC Biotech AG in Munich, Germany and various roles at several other companies. Dr. Stolz received her B.S. in chemistry from the University of Virginia and a Ph.D. in organic chemistry from the University of Rochester. She conducted postdoctoral research in biochemistry at Harvard Medical School.

Ted Yednock, Ph.D. has served as our Executive Vice President and Chief Scientific Officer since November 2013. Previously, Dr. Yednock was Chief Scientific Officer for Prothena Corporation plc, a publicly-held biotechnology company spun out from Elan Pharmaceuticals, Inc., until 2013, and served in several roles of increasing responsibility from 1996 to 2013 at Elan Pharmaceuticals, Inc., a biopharmaceutical company, including Head of Global Research from 2007 to 2013. From 1990 to 1996, Dr. Yednock was a Scientist at Athena Neurosciences, Inc., a privately-held pharmaceutical company. While at Athena, he was the scientific inventor of Tysabri®, a monoclonal antibody for the treatment of multiple sclerosis. In addition to his work in multiple sclerosis, Dr. Yednock has contributed to the invention or progression of numerous drugs in the areas of Alzheimer's disease, Parkinson's disease, amyloidosis, rheumatoid arthritis, psoriasis and Crohn's disease. Dr. Yednock received his B.S. in biology and chemistry from the University of Illinois and his Ph.D. in anatomy and cell biology from the University of California, San Francisco.

Non-Employee Directors

William D. Young has served as Chairman of our board of directors since March 2017 and as a member of our board of directors since December 2014. Since December 2018, he has been a Senior Advisor at Blackstone Life Sciences, following Blackstone's acquisition of Clarus Ventures, LLC, a healthcare and life sciences venture capital firm where Mr. Young served as Venture Partner since 2010. Mr. Young served from 1999 until 2009 as Chairman of the board of directors and Chief Executive Officer of Monogram Biosciences, Inc., then a publicly-held biotechnology company, which was acquired by Laboratory Corporation of America in June 2009. From 1980 to 1999, Mr. Young was employed at Genentech, Inc., most recently as Chief Operating Officer, where he was responsible for all Product Development, Manufacturing and Commercial functions. Prior to joining

Genentech, Mr. Young worked at Eli Lilly & Company for 14 years. Mr. Young has been Chairman of the board of directors of NanoString Technologies, Inc., a publicly-held biotechnology company, since March 2010. He has served as a director of Theravance Biopharma., Inc., a publicly-held biopharmaceutical company, since October 2013 and lead independent director since April 2014. Mr. Young served as a director of Innoviva, Inc., a publicly-held biopharmaceutical company, from April 2001 to June 2014, prior to Theravance's spin-off from Innoviva. In addition, Mr. Young has been a member of the board of directors of Vertex Pharmaceuticals Incorporated, a publicly-held biopharmaceutical company, since May 2014 and is also a member of the board of directors of Praxis Precision Medicines, Inc., a privately-held pharmaceutical company, and SJF Pharmaceuticals Inc., a privately-held pharmaceutical company, both Clarus portfolio companies. He was a member of the board of directors of BioMarin, Inc., a publicly-held biotechnology company, until November 2015 and Biogen Idec Inc., a publicly-held biotechnology company, until June 2014, having served as a director since 1997 and as Chairman of the board of directors since 2010. Mr. Young is also a Trustee of Montage Health, a nonprofit company. Mr. Young received his B.S. in Chemical Engineering from Purdue University, his M.B.A. from Indiana University and an honorary Doctorate of Engineering from Purdue University. Mr. Young was elected to The National Academy of Engineering in 2003 for his contributions to biotechnology. We believe that Mr. Young is qualified to serve on our board of directors due to his demonstrated leadership in his field, his experience as an executive and a board member of biotechnology and pharmaceutical companies and his experience as an investor in life sciences companies.

Emmett Cunningham, M.D., Ph.D., M.P.H. has served as a member of our board of directors since December 2014. He is a Senior Managing Director of Blackstone Life Sciences, having joined as part of its acquisition of Clarus Ventures, LLC, in December 2018. Dr. Cunningham was a Managing Director at Clarus from January 2017 to November 2018, where he led investments in the medical technology and biotechnology space including partnerships with pharmaceutical companies, and a Partner from December 2008 to December 2016. Prior to joining Clarus, Dr. Cunningham was the Senior Vice President, Medical Strategy at Eyetech Pharmaceuticals, Inc., a privately-held pharmaceutical company, from February 2004 to December 2005, where he helped lead the team that developed Macugen, a treatment for age-related macular degeneration. Dr. Cunningham is an internationally recognized specialist in infectious and inflammatory eye disease with over 350 publications. Dr. Cunningham previously served as a member of the board of directors of Restoration Robotics, Inc., a publicly-held medical device company. He is also a member of the board of directors of Galera Therapeutics, Inc., a privately-held biotechnology company, Graybug Vision, Inc., a privately-held clinical-stage pharmaceutical company, Lumos Pharma, Inc., a privately-held clinical-stage biopharmaceutical company, and SFJ Pharmaceutical, Inc., a privately-held pharmaceutical company, and serves on the Scientific Advisory Board of Aerie Pharmaceuticals, Inc., a publicly-held ophthalmic pharmaceutical company. Dr. Cunningham is the founder and Chairman of the Ophthalmology Innovation Summit symposium held in conjunction with the annual meetings of the American Academy of Ophthalmology and the American Society of Cataract and Refractive Surgery. Dr. Cunningham received his B.S. in Science from Drexel University and a B.A. in human biology, M.D. and M.P.H. in public health from Johns Hopkins University and a Ph.D. in neuroscience from the University of California, San Diego for work done at The Salk Institute. We believe that Dr. Cunningham is qualified to serve on our board of directors due to his educational background, his medical and scientific expertise, his experience as a board member of biotechnology and pharmaceutical companies and his experience as an investor in life sciences companies.

Carol Gallagher, Pharm.D. has served as a member of our board of directors since October 2018. Since October 2014, Dr. Gallagher has served as a partner with New Enterprise Associates, Inc., a venture capital firm. Prior to joining New Enterprise Associates, Dr. Gallagher served as a venture partner with Frazier Healthcare Partners, a venture capital firm, from October 2013 to July 2014. Dr. Gallagher served as the President and Chief Executive Officer of Calistoga Pharmaceuticals, Inc., a privately-held biopharmaceutical company, from 2008 to 2011, when the company was acquired by Gilead Sciences, Inc. From 2007 to 2008, Dr. Gallagher was the President and Chief Executive Officer of Metastatix, Inc., a privately-held biopharmaceutical company. Prior to that time starting in 1989, she served in various roles at pharmaceutical companies, Eli Lilly & Company, Amgen Inc., Agouron Pharmaceuticals, Inc., Pfizer Inc., Biogen Idec Pharmaceuticals Inc., CancerVax Corp. and Anadys

Pharmaceuticals, Inc. Dr. Gallagher also serves as Chairman of the board of directors of Millendo Therapeutics, Inc., a publicly-held biopharmaceutical company, since 2012, lead director at Atara Bio, Inc., a publicly-held immunotherapy company, since 2012, and as a director of Turning Point Therapeutics, a publicly-held oncology company, since August 2019. She also serves as a director to the following private companies: Metacrine, Inc. (since November 2017), PIONYR Immunotherapeutics Inc. (since December 2017), Qpex (since August 2018), XOC Pharmaceuticals (since October 2018) and Chromacode (since December 2018). From November 2011 to March 2018, Dr. Gallagher served as a member of the board of directors of AnaptysBio, Inc., a publicly-held biopharmaceutical company. Dr. Gallagher attended Vanderbilt University and received B.S. and Doctor of Pharmacy degrees from the University of Kentucky. We believe that Dr. Gallagher is qualified to serve on our board of directors due to her educational background, her experience as an executive and a board member of biotechnology and pharmaceutical companies and her experience as an investor in life sciences companies.

Campbell Murray, M.D. has served as a member of our board of directors since December 2014. Dr. Murray has served as a Managing Director at the Novartis Venture Fund since August 2005. Previously, Dr. Murray served as the Director of Special Projects at the Novartis Institutes for BioMedical Research from July 2004 until July 2005. Currently, Dr. Murray serves as a member of the boards of directors of Expansion Therapeutics, Galera Therapeutics, Lemonaid Health, Renovacor and TScan Therapeutics. Dr. Murray received a bachelor of human biology from the University of Auckland Medical School, an M.B.A. from Harvard Business School, an M.P.P. from the John F. Kennedy School of Government, and an MBChB (M.D.) from the University of Auckland Medical School. We believe that Dr. Murray is qualified to serve on our board of directors due to his extensive investment experience in the biotechnology sector. Dr. Murray has notified us that he will resign from our board of directors immediately prior to the effectiveness of the registration statement of which this prospectus forms a part. Dr. Murray's resignation is not due to any disagreement with the company or any matters relating to our operations, policies or practices.

Muneer A. Satter has served as a member of our board of directors since December 2014. Mr. Satter has been Founder and Managing Partner of Satter Medical Technology Partners, L.P. since 2016, and Chairman of Satter Investment Management, LLC since 2012, and he also manages the Satter Foundation. Prior to Satter Investment Management, Mr. Satter was a partner at Goldman Sachs where he spent 24 years in various roles, most recently as the Global Head of the Mezzanine Group in the Merchant Banking Division, where he raised and managed over $30 billion of assets and was also Chairman of the Risk Committee overseeing $80 billion of assets. He is the Chairman of the board of directors of Aerpio Pharmaceuticals, a publicly-held biopharmaceutical company. Mr. Satter was Chairman of the board of directors of Akebia Therapeutics, Inc. from May 2013 to December 2018 and was Co-Chairman and a director of Vital Therapies, Inc. from October 2012 to October 2018. He also serves as Vice Chairman of the Goldman Sachs Foundation and GS Gives, is a director of World Business Chicago and Accelerate Institute, is on the Board of Advisors of the American Enterprise Institute, is on the board of directors of the Navy SEAL Foundation, Northwestern Medical Group and is on the Board of Trustees of Northwestern University where he is Chairman of the Finance Committee, as well as on the Board of Trustees of the US Olympic and Paralymic Foundation. Mr. Satter received a B.A. in Economics from Northwestern University, a J.D. from Harvard Law School and an M.B.A. from Harvard Business School. We believe that Mr. Satter is qualified to serve on our board of directors due to his experience in the financial industry, his experience as a board member of biotechnology and pharmaceutical companies and his experience as an investor in life sciences companies.

Ricky Sun, Ph.D. has served as a member of our board of directors since December 2018. Since August 2016, Dr. Sun has been a partner at Bain Capital Life Sciences Fund L.P. Prior to joining Bain Capital, he was a Director of Corporate Development and Strategy at Biogen Inc., a publicly-held biotechnology company, from January 2013 to July 2016. Prior to Biogen, Dr. Sun served as a Vice President at BlackRock, Inc., as a member of the Fundamental Equity division of BlackRock's Alpha Strategies Group and senior analyst for BlackRock's Fundamental Large Cap Growth equity team, covering the health care sector. Prior to that, he was a senior healthcare analyst at Citadel LLC and Alyeska Investment Group, L.P. in Chicago from May 2010 to December 2011, and worked as a pharmaceuticals equity research analyst on Wall Street from September 2006 to July

2007, spending time at Lehman Brothers Holdings Inc. and Morgan Stanley. Dr. Sun began his career as a senior scientist at Ironwood Pharmaceutical, Inc. from January 2002 to July 2009, where he was involved in the discovery and development of the drug Linzess for irritable bowel syndrome. Dr. Sun received a B.A. in chemistry, *summa cum laude*, from Berea College, an M.B.A. from New York University Stern School of Business, where he was a Mildred Elperin Scholar, and a Ph.D. degree in Chemistry and Chemical Biology from Harvard University. He was also an NIH post-doctoral fellow in Biological Chemistry & Molecular Pharmacology at Harvard Medical School. We believe that Dr. Sun is qualified to serve on our board of directors due to his educational background and his experience in the financial industry.

Thomas G. Wiggans has served as a member of our board of directors since February 2017. Mr. Wiggans founded Dermira, Inc., a publicly-held pharmaceutical company, in August 2010 and has served as its Chief Executive Officer since September 2010 and on its board of directors since October 2014. Mr. Wiggans has also served on the boards of various industry organizations, educational institutions and private and public companies, including service on the boards of directors of Onyx Pharmaceuticals from March 2005 until its acquisition by Amgen Inc. in October 2013, Sangamo Biosciences, Inc. from June 2008 until June 2012, Somaxon Pharmaceuticals, Inc. from June 2008 until May 2012 and as Chairman of the board of directors of Excaliard Pharmaceuticals, Inc. from October 2010 until its acquisition by Pfizer, Inc. in December 2011. From October 2007, Mr. Wiggans served as Chairman of the board of directors of Peplin, Inc. and in July 2007, he became its Chief Executive Officer, and he served in these positions until Peplin's acquisition by LEO Pharma A/S in November 2009. Previously, Mr. Wiggans served as Chief Executive Officer of Connetics Corporation from July 1994, and as Chairman of the board of directors of Connetics from January 2006, and he served in these positions until December 2006 when Connetics was acquired by Stiefel Laboratories, Inc. From 1992 to 1994, Mr. Wiggans served as President and Chief Operating Officer of CytoTherapeutics Inc. From 1980 to 1992, Mr. Wiggans served at Ares-Serono S.A. in various management positions including President of its U.S. pharmaceutical operations and Managing Director of its U.K. pharmaceutical operations. Mr. Wiggans began his career with Eli Lilly & Company. In addition, Mr. Wiggans is a member of the board of directors of the Biotechnology Innovation Organization and is a member of the board of trustees of the University of Kansas Endowment Association. Mr. Wiggans received a B.S. in pharmacy from the University of Kansas and an M.B.A. from Southern Methodist University. We believe that Mr. Wiggans is qualified to serve on our board of directors due to his experience as an executive and a board member of biotechnology and pharmaceutical companies.

Family Relationships

There are no family relationships among any of our executive officers or directors.

Board Composition

Director Independence

Our board of directors currently consists of eight members. Our board of directors has determined that all of our directors, other than Mr. Love, qualify as independent directors in accordance with The Nasdaq Stock Market LLC, or Nasdaq, Marketplace Rules or the Nasdaq Listing Rules. Mr. Love is not considered independent by virtue of his position as our President and Chief Executive Officer. Under the Nasdaq Listing Rules, the definition of independence includes a series of objective tests, such as that the director is not, and has not been for at least three years, one of our employees and that neither the director nor any of his or her family members has engaged in various types of business dealings with us. In addition, as required by the Nasdaq Listing Rules, our board of directors has made a subjective determination as to each independent director that no relationships exists that, in the opinion of our board of directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In making these determinations, our board of directors reviewed and discussed information provided by the directors and us with regard to each director's relationships as they may relate to us and our management.

Classified Board of Directors

In accordance with our amended and restated certificate of incorporation, which will be effective immediately prior to the completion of this offering, our board of directors will be divided into three classes with staggered three-year terms. At each annual general meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following 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 2021;
- The Class II directors will be , and , and their terms will expire at the annual meeting of stockholders to be held in 2022; and
- The Class III directors will be , and , and their terms will expire at the annual meeting of stockholders to be held in 2023.

We expect that any additional directorships resulting from an increase 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. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control.

Voting Arrangements

The election of the members of our board of directors is currently governed by the amended and restated voting agreement that we entered into with certain holders of our common stock and convertible preferred stock and the related provisions of our amended and restated certificate of incorporation. Pursuant to our amended and restated voting agreement and amended and restated certificate of incorporation, our current directors were elected as follows:

- Dr. Cunningham, Dr. Gallagher, Dr. Murray, Mr. Satter and Dr. Sun were elected as the designees of Clarus Lifesciences III, L.P., New Enterprise Associates 15, L.P., Novartis Bioventures Ltd., entities affiliated with Mr. Satter and Bain Capital Life Sciences Fund, L.P., respectively;
- Mr. Love was elected and designated as our then-serving and current Chief Executive Officer; and
- Mr. Wiggans and Mr. Young were elected as the designees of the (i) holders of a majority of the shares of common stock held by stockholders who are our employees, consultants or advisors at the time of such vote and (ii) holders of at least 60% of the shares of our Series A-1 redeemable convertible preferred stock, Series B redeemable convertible preferred stock and Series C redeemable convertible preferred stock on an as-converted basis.

Our amended and restated voting agreement will terminate and the provisions of our current amended and restated certificate of incorporation by which our directors were elected will be amended and restated in connection with this offering. After this offering, the number of directors will be fixed by our board of directors, subject to the terms of our amended and restated certificate of incorporation and amended and restated bylaws that will become effective immediately prior to the completion of this offering. Each of our current directors will continue to serve as a director until the election and qualification of his or her successor, or until his or her earlier death, resignation or removal.

Leadership Structure of the Board

Our amended and restated bylaws and corporate governance guidelines provide our board of directors with flexibility to combine or separate the positions of Chairman of the board of directors and Chief Executive Officer.

Our board of directors has concluded that our current leadership structure is appropriate at this time. However, our board of directors will continue to periodically review our leadership structure and may make such changes in the future as it deems appropriate.

Role of Board in Risk Oversight Process

Risk assessment and oversight are an integral part of our governance and management processes. Our board of directors encourages management to promote a culture that incorporates risk management into our corporate strategy and day-to-day business operations. Management discusses strategic and operational risks at regular management meetings, and conducts specific strategic planning and review sessions during the year that include a focused discussion and analysis of the risks facing us. Throughout the year, senior management reviews these risks with the board of directors at regular board meetings as part of management presentations that focus on particular business functions, operations or strategies, and presents the steps taken by management to mitigate or eliminate such risks.

Our board of directors does not have a standing risk management committee, but rather administers this oversight function directly through our board of directors as a whole, as well as through various standing committees of our board of directors that address risks inherent in their respective areas of oversight. While our board of directors is responsible for monitoring and assessing strategic risk exposure, our audit committee is responsible for overseeing our major financial risk exposures and the steps our management has taken to monitor and control these exposures. The audit committee also approves or disapproves any related person transactions. Our nominating and corporate governance committee monitors the effectiveness of our corporate governance guidelines. Our compensation committee assesses and monitors whether any of our compensation policies and programs has the potential to encourage excessive risk-taking.

Board Committees

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee. Our board of directors may establish other committees to facilitate the management of our business. The composition and functions of each committee are described below. Members serve on these committees until their resignation or until otherwise determined by our board of directors. Each committee intends to adopt a written charter that satisfies the applicable rules and regulations of the SEC and Nasdaq Listing Rules, which we will post on our website at www.annexonbio.com upon the completion of this offering. The reference to our website address does not constitute incorporation by reference of the information contained at or available through our website.

Audit Committee

Our audit committee oversees our corporate accounting and financial reporting process. Among other matters, the audit committee:

- appoints our independent registered public accounting firm;
- evaluates the independent registered public accounting firm’s qualifications, independence and performance;
- determines the engagement of the independent registered public accounting firm;
- reviews and approves the scope of the annual audit and pre-approves the audit and non-audit fees and services;
- reviews and approves all related party transactions on an ongoing basis;
- establishes procedures for the receipt, retention and treatment of any complaints received by us regarding accounting, internal accounting controls or auditing matters;

- discusses with management and the independent registered public accounting firm the results of the annual audit and the review of our quarterly financial statements;
- approves the retention of the independent registered public accounting firm to perform any proposed permissible non-audit services;
- discusses on a periodic basis, or as appropriate, with our management's policies and procedures with respect to risk assessment and risk management;
- consults with management to establish procedures and internal controls relating to cybersecurity;
- is responsible for reviewing our financial statements and our management's discussion and analysis of financial condition and results of operations to be included in our annual and quarterly reports to be filed with the SEC;
- investigates any reports received through the ethics helpline and reports to the board of directors periodically with respect to any information received through the ethics helpline and any related investigations; and
- reviews the audit committee charter and the audit committee's performance on an annual basis.

Our audit committee consists of , and . Our board of directors has determined that all members are independent under the Nasdaq Listing Rules and Rule 10A-3(b)(1) of the Exchange Act. The chair of our audit committee is . Our board of directors has determined that and are each an audit committee financial expert as such term is currently defined in Item 407(d)(5) of Regulation S-K. Our board of directors has also determined that each member of our audit committee can read and understand fundamental consolidated financial statements, in accordance with applicable requirements.

Compensation Committee

Our compensation committee oversees policies relating to compensation and benefits of our officers and employees. The compensation committee reviews and approves or recommends corporate goals and objectives relevant to compensation of our executive officers (other than our Chief Executive Officer), evaluates the performance of these officers in light of those goals and objectives and approves the compensation of these officers based on such evaluations. The compensation committee also reviews and approves or makes recommendations to our board of directors regarding the issuance of stock options and other awards under our stock plans to our executive officers (other than our Chief Executive Officer). The compensation committee reviews the performance of our Chief Executive Officer and makes recommendations to our board of directors with respect to his compensation, and our board of directors retains the authority to make compensation decisions relative to our Chief Executive Officer. The compensation committee will review and evaluate, on an annual basis, the compensation committee charter and the compensation committee's performance.

Our compensation committee consists of , and . Our board of directors has determined that all members are independent under the Nasdaq Listing Rules and are "non-employee directors" as defined in Rule 16b-3 promulgated under the Exchange Act. The chair of our compensation committee is .

Nominating and Corporate Governance Committee

The nominating and corporate governance committee is responsible for making recommendations to our board of directors regarding candidates for directorships and the size and composition of our board of directors. In addition, the nominating and corporate governance committee is responsible for overseeing our corporate governance policies and making recommendations to our board of directors concerning governance matters.

Our nominating and corporate governance committee consists of , and . Our board of directors has determined that all members of the nominating and corporate governance committee are independent under the Nasdaq Listing Rules. The chair of our nominating and corporate governance committee is .

Compensation Committee Interlocks and Insider Participation

None of the members of the compensation committee is currently, or has been at any time, one of our executive officers or employees. None of our executive officers currently serves, or has served during the last year, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving as a member of our board of directors or on our compensation committee.

Board Diversity

Upon consummation of this offering, our nominating and corporate governance committee will be responsible for reviewing with the board of directors, on an annual basis, the appropriate characteristics, skills and experience required for the board of directors as a whole and its individual members. In evaluating the suitability of individual candidates (both new candidates and current members), the nominating and corporate governance committee, in recommending candidates for election, and the board of directors, in approving (and, in the case of vacancies, appointing) such candidates, may take into account many factors, including but not limited to the following:

- personal and professional integrity;
- ethics and values;
- experience in corporate management, such as serving as an officer or former officer of a publicly held company;
- professional and academic experience relevant to our industry;
- experience as a board member of another publicly held company;
- strength of leadership skills;
- experience in finance and accounting and/or executive compensation practices;
- ability to devote the time required for preparation, participation and attendance at board of directors meetings and committee meetings, if applicable;
- background, gender, age and ethnicity;
- conflicts of interest; and
- ability to make mature business judgments.

Following the consummation of this offering, our board of directors will evaluate each individual in the context of the board of directors as a whole, with the objective of ensuring that the board of directors, as a whole, has the necessary tools to perform its oversight function effectively in light of our business and structure.

Code of Business Conduct and Ethics

In connection with this offering, we intend to adopt a written code of business conduct and ethics that applies to all of our directors, officers and employees, including those officers responsible for financial reporting. The full text of our code of business conduct and ethics will be posted on our website at www.annexonbio.com upon the completion of this offering. Any substantive amendment to, or waiver of, a provision of the code of business conduct and ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller or persons performing similar functions will be disclosed on our website.

Limitation on Liability and Indemnification Matters

Our amended and restated certificate of incorporation and our amended and restated bylaws, both of which will become effective immediately prior to the completion of this offering, limit our directors' liability, and provide that we may indemnify our directors and officers to the fullest extent permitted under Delaware General Corporation Law, or the DGCL. The DGCL provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability for any:

- transaction from which the director derives an improper personal benefit;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or redemption of shares; or
- breach of a director's duty of loyalty to the corporation or its stockholders.

These limitations of liability do not apply to liabilities arising under federal securities laws and do not affect the availability of equitable remedies such as injunctive relief or recession.

The DGCL and our amended and restated bylaws provide that we will, in certain situations, indemnify our directors and officers and may indemnify other employees and other agents, to the fullest extent permitted by law. Any indemnified person is also entitled, subject to certain limitations, to advancement, direct payment or reimbursement of reasonable expenses (including attorneys' fees and disbursements) in advance of the final disposition of the proceeding.

In addition, we have entered, and intend to continue to enter, into separate indemnification agreements with our directors and officers. These indemnification agreements, among other things, require us to indemnify our directors and officers for certain expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of their services as a director or officer, or any other company or enterprise to which the person provides services at our request.

We also maintain a directors' and officers' insurance policy pursuant to which our directors and officers are insured against liability for actions taken in their capacities as directors and officers.

We believe that these provisions in our amended and restated certificate of incorporation and amended and restated bylaws and these indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or control persons, in the opinion of the SEC, such indemnification is against public policy, as expressed in the Securities Act and is therefore unenforceable.

EXECUTIVE AND DIRECTOR COMPENSATION

This section discusses the material components of the executive compensation program for our executive officers who are named in the "2018 Summary Compensation Table" below. In 2018, our "named executive officers" and their positions were as follows:

- Douglas Love, our President and Chief Executive Officer;
- Mark Smith, our former Executive Vice President and Chief Financial Officer; and
- Ted Yednock, our Executive Vice President and Chief Scientific Officer.

Mr. Smith commenced employment as our Executive Vice President and Chief Financial Officer in January 2018 and resigned employment in May 2019.

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 completion of this offering may differ materially from the currently planned programs summarized in this discussion. As an "emerging growth company" as defined in the JOBS Act, we are not required to include a Compensation Discussion and Analysis section and have elected to comply with the scaled disclosure requirements applicable to emerging growth companies.

2018 Summary Compensation Table

The following table sets forth information concerning the compensation of our named executive officers for the year ended December 31, 2018.

Name and Principal Position	Year	Salary ($)	Bonus ($)	Option Awards ($)(1)	Non-Equity Incentive Plan Compensation ($)(2)	All Other Compensation ($)	Total ($)
Douglas Love, Esq. *President and Chief Executive Officer*	2018	379,192	—	—	138,352	—	517,544
Mark Smith *Former Executive Vice President and Chief Financial Officer*(4)	2018	310,377	—	208,343	89,100	59,932(3)	667,752
Ted Yednock, Ph.D. *Executive Vice President and Chief Scientific Officer*	2018	323,228	—	—	103,764	—	426,992

(1) Amounts reflect the full grant-date fair value of option awards granted during 2018 computed in accordance with ASC Topic 718, rather than the amounts paid to or realized by the named individual. See Note 9 of the audited financial statements included in this prospectus for the assumptions used in calculating these amounts.
(2) Amounts represent the annual performance-based cash bonuses earned by our named executive officers based on the achievement of certain corporate performance objectives during 2018. These amounts were paid to the named executive officers in early 2019. Please see the descriptions of the annual performance bonuses paid to our named executive officers under "2018 Bonuses" below.
(3) Amount represents relocation reimbursements made to Mr. Smith in connection with the commencement of his employment with us.
(4) Mr. Smith commenced employment effective January 16, 2018.

Narrative to the Summary Compensation Table

2018 Salaries

Our named executive officers each receive a base salary to compensate them for services rendered to our company. The base salary payable to each named executive officer is intended to provide a fixed component of compensation reflecting the executive's skill set, experience, role and responsibilities.

For fiscal year 2018, Mr. Love's annual base salary was $384,311, Mr. Smith's annual base salary was $330,000 and Dr. Yednock's annual base salary was $329,409. We increased the annual base salaries of Mr. Love and Dr. Yednock by 3.5% from their respective levels in 2017, and Mr. Smith's 2018 base salary was negotiated in connection with the commencement of his employment with the company in January 2018. In January 2019, our compensation committee approved merit salary increases of 3.5% for fiscal year 2019, thus increasing Mr. Love's, Mr. Smith's and Dr. Yednock's 2019 annual base salaries to $397,762, $341,550 and $340,938, respectively.

2018 Bonuses

We maintain an annual performance-based cash bonus program in which each of our named executive officers participated in 2018. Each named executive officer's target bonus is expressed as a percentage of base salary which can be achieved by meeting certain performance goals discussed below at target level. The 2018 annual bonuses for Mr. Love, Mr. Smith and Dr. Yednock were targeted at 40%, 30% and 35% of their respective base salaries, which percentages were unchanged from their 2017 levels for Mr. Love and Dr. Yednock. Mr. Smith's target bonus was negotiated in connection with the commencement of his employment with the company in January 2018.

For 2018, our named executive officers were eligible to earn annual cash bonuses based on the achievement of certain corporate objectives approved by the compensation committee and the board of directors. The goals under our 2018 bonus program were set under the strategic areas of clinical development of our ANX005 and ANX007 product candidates (weighted 65%), corporate, including the completion of a financing and operation of corporation finances within budget (weighted 30%), and research relating to our small molecule program and ANX005 (weighted 5%). Our bonus program also included a stretch goal relating to clinical development that could result in payout over target if achieved.

In early 2019, the board of directors reviewed and approved overall achievement of our 2018 corporate goals at 90%, based on which each of our named executive officers were paid performance bonuses at 90% of their targeted amounts. Mr. Smith's bonus was not prorated for the period of his employment in 2018 as he commenced employment on January 16.

The actual annual cash bonuses awarded to each named executive officer for 2018 performance are set forth above in the Summary Compensation Table in the column titled "Non-Equity Incentive Plan Compensation."

Equity Compensation

We have granted stock options to our employees, including our named executive officers, in order to attract and retain them, as well as to align their interests with the interests of our stockholders. In order to provide a long-term incentive, these stock options generally vest over four years subject to continued service to the company.

In connection with the commencement of his employment as our Executive Vice President and Chief Financial Officer, in January 2018, Mr. Smith was granted an option to purchase 632,822 shares of our common stock which vested as to 25% of the shares subject to the option on January 16, 2019 and was scheduled to vest as to 1/48th of the shares subject to the option on each monthly anniversary thereafter, subject to Mr. Smith's continued service on each applicable vesting date. Mr. Smith resigned from the company in May 2019, forfeiting his unvested options. Neither Mr. Love nor Dr. Yednock were granted stock options in 2018.

In January 2019, we granted to Mr. Love, Mr. Smith and Dr. Yednock options to purchase 4,738,414, 395,243 and 619,383 shares of our common stock, respectively, which vest as to 1/48th of the shares subject to the option on each monthly anniversary of December 12, 2018, subject to continued service.

We intend to adopt a 2020 Incentive Award Plan, referred to below as the 2020 Plan, in order to facilitate the grant of cash and equity incentives to directors, employees (including our named executive officers) and consultants of our company and certain of its affiliates and to enable us to obtain and retain services of these individuals, which is essential to our long-term success. The 2020 Plan will be effective on the day prior to the date the registration statement relating to this offering becomes effective. For additional information about the 2020 Plan, please see the section titled "Equity Incentive Plans" below.

Other Elements of Compensation

Retirement Savings and Health and Welfare Benefits

We maintain a 401(k) retirement savings plan for our employees, including our named executive officers, who satisfy certain eligibility requirements. Our named executive officers are eligible to participate in the 401(k) plan on the same terms as other full-time employees. Currently, we do not match contributions made by participants in the 401(k) plan. We believe that providing a vehicle for tax-deferred retirement savings through our 401(k) plan adds to the overall desirability of our executive compensation package and further incentivizes our employees, including our named executive officers, in accordance with our compensation policies.

All of our full-time employees, including our named executive officers, are eligible to participate in our health and welfare plans, including: medical, dental and vision benefits; basic and supplemental life and accidental death and dismemberment insurance; and medical and dependent care flexible spending accounts.

Perquisites and Other Personal Benefits

We reimburse the cost of commuting to our offices for Mr. Love and Dr. Yednock. In addition, pursuant to his offer letter with us and in connection with the commencement of his employment with us in January 2018, Mr. Smith was eligible to receive up to $50,000 for relocation and related travel expenses.

Outstanding Equity Awards at Fiscal Year-End

The following table summarizes the number of shares of common stock underlying outstanding option awards for each named executive officer as of December 31, 2018.

Name and Principal Position	Grant Date	Vesting Commencement Date (1)	Number of Securities Underlying Unexercised Options (Exercisable) (#)	Number of Securities Underlying Unexercised Options (Unexercisable) (#)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price ($)	Option Expiration Date
Douglas Love, Esq.	1/22/2015	12/12/2014(2)	1,224,931	—	—	0.16	1/22/2025
President and Chief Executive Officer	8/11/2016	6/8/2016(2)	616,773	338,230	—	0.21	8/11/2026
	8/11/2016	8/11/2016	191,885	125,718	—	0.21	8/11/2026
Mark Smith	1/23/2018	1/16/2018(2)(3)	—	632,822	—	0.48	1/23/2028
Former Executive Vice President and Chief Financial Officer							
Ted Yednock, Ph.D.	1/22/2015	12/12/2014(2)	489,972	—	—	0.16	1/22/2025
Executive Vice President and Chief Scientific Officer	8/11/2016	6/8/2016(2)	246,709	135,292	—	0.21	8/11/2026
	8/11/2016	8/11/2016	16,397	10,743	—	0.21	8/11/2026

(1) Except as otherwise indicated, 1/48th of the shares subject to each option vest on each monthly anniversary of the vesting commencement date, subject to continued service with us.

(2) Pursuant to the terms of the named executive officer's offer letter, the shares subject to the option will vest in full in the event of a termination of the executive's employment by us without "cause" or the executive's resignation for "good reason" (each, as defined in the offer letter), in each case, that occurs within 12 months following a "change of control" of us (as defined in the offer letter).

(3) 25% of the shares subject to the option vested on the 12-month anniversary of the vesting commencement date and 1/36th of the remaining shares subject to the option were scheduled to vest on each monthly anniversary thereafter, subject to continued service with us.

Executive Compensation Arrangements

As of December 31, 2018, we were party to offer letters with each of our named executive officers.

Mr. Love. We entered into an offer letter with Mr. Love in December 2014 setting forth the terms of his employment as our President and Chief Executive Officer, including his initial base salary, target bonus, initial stock option grants and benefit plan participation eligibility. Mr. Love's offer letter provides that in the event that Mr. Love's employment is terminated by us without "cause" (as defined in the offer letter), then subject to his execution of a release of claims in favor of us, Mr. Love will receive severance payments equal to nine months of his then-current base salary. In addition, in the event that Mr. Love is terminated by us without cause or resigns for "good reason" (as defined in the offer letter), in each case, within 12 months following a "change of control" (as defined in the offer letter), his initial option grants will vest in full.

Mr. Smith. We entered into an offer letter with Mr. Smith in December 2017 in connection with the commencement of his employment as our Executive Vice President and Chief Financial Officer effective January 16, 2018. The offer letter provided for an annual base salary of $330,000 and an annual performance bonus of up to 30% of his annual base salary. Pursuant to the terms of the offer letter, Mr. Smith also received an initial option grant as described above under "Equity Compensation." Mr. Smith was also eligible to receive up to $50,000 for expenses incurred to relocate to the San Francisco Bay Area and expenses associated with traveling to our South San Francisco office prior to his relocation.

Mr. Smith's offer letter provided that in the event that Mr. Smith's employment was terminated by us without "cause" (as defined in the offer letter) after the first six months of employment, then subject to his execution of a release of claims in favor of us, Mr. Smith would receive severance payments equal to six months of his then-current base salary. In addition, in the event that Mr. Smith is terminated by us without cause or resigns for "good reason" (as defined in the offer letter), in each case, within 12 months following a change in control, his unvested equity awards would vest in full. Mr. Smith did not receive any severance benefits in connection with his resignation from us in May 2019.

Dr. Yednock. We entered into an offer letter with Dr. Yednock in December 2014 setting forth the terms of his employment as our Chief Science Officer, including his initial base salary, target bonus, initial stock option grants and benefit plan participation eligibility. Dr. Yednock's offer letter provides that in the event that Dr. Yednock's employment is terminated by us without "cause" (as defined in the offer letter), then subject to his execution of a release of claims in favor of us, Dr. Yednock will receive severance payments equal to four and one-half months of his then-current base salary. In addition, in the event that Dr. Yednock is terminated by us without cause or resigns for "good reason" (as defined in the offer letter), in each case, within 12 months following a "change of control" (as defined in the offer letter), his initial option grants will vest in full.

For purposes of our named executive officers' offer letters:

"Cause" means (i) the executive's failure to perform the executive's assigned duties or responsibilities as an officer of us (other than a failure resulting from the executive's Disability (as defined in the offer letter) after notice thereof from us describing the executive's failure to perform such duties or responsibilities, (ii) the executive's engaging in any act of dishonesty, fraud or misrepresentation, (iii) the executive's violation of any federal or state law or regulation applicable to our business or our affiliates, (iv) the executive's breach of any confidentiality agreement or invention assignment agreement between the executive and us (or any affiliate of

us), or (v) the executive's commission of, or entering a plea of nolo contendere to, any crime or committing any act of moral turpitude; and

"Good Reason" for the executive to terminate the executive's employment shall mean the occurrence of any of the following events without the executive's consent: (i) a material reduction in the executive's salary or benefits (excluding the substitution of substantially equivalent compensation and benefits), other than as a result of a reduction in compensation affecting our employees, or our successor entity, generally; (ii) a material diminution in the executive's duties or responsibilities, provided however, that, a mere change in title or reporting relationship alone shall not constitute "Good Reason," and (iii) relocation of the executive's place of employment to a location more than 50 miles from our office location. If any of the events set forth above shall occur, the executive shall give prompt written notice of such event to us, or our successor entity, upon becoming aware of such event, and if such event is not cured within thirty (30) days from such notice the executive may exercise his or her rights to resign for Good Reason, provided that if the executive has not exercised such right within forty-five (45) days of the date of such notice the executive shall be deemed to have agreed to the occurrence of such event.

Equity Compensation Plans

The following summarizes the material terms of the 2020 Plan, in which our named executive officers (other than Mr. Smith) will be eligible to participate following the consummation of this offering, our 2011 Equity Incentive Plan, referred to as the 2011 Plan, under which we have previously made periodic grants of equity and equity-based awards to our named executive officers and other key employees and the 2020 Employee Stock Purchase Plan that we intend to adopt in connection with the consummation of this offering.

2020 Incentive Award Plan

We intend to adopt the 2020 Plan, which will be effective on the date immediately prior to the date our registration statement relating to this offering becomes effective. The principal purpose of the 2020 Plan is to attract, retain and motivate selected employees, consultants and directors through the granting of stock-based compensation awards and cash-based performance bonus awards. The material terms of the 2020 Plan, as it is currently contemplated, are summarized below.

Share Reserve. Under the 2020 Plan, shares of our common stock will be initially reserved for issuance pursuant to a variety of stock-based compensation awards, including stock options, stock appreciation rights, or SARs, restricted stock awards, restricted stock unit awards, performance bonus awards, performance stock unit awards, dividend equivalents or other stock or cash based awards. The number of shares initially reserved for issuance or transfer pursuant to awards under the 2020 Plan will be increased by (i) the number of shares represented by awards outstanding under our 2011 Plan, or 2011 Plan Awards, that become available for issuance under the counting provisions described below following the effective date and (ii) an annual increase on the first day of each fiscal year beginning in 2021 and ending in 2030, equal to the lesser of (A) % of the shares of stock outstanding (on an as converted basis) on the last day of the immediately preceding fiscal year and (B) such smaller number of shares of stock as determined by our board of directors; provided, however, that no more than shares of stock may be issued upon the exercise of incentive stock options.

The following counting provisions will be in effect for the share reserve under the 2020 Plan:

- to the extent that an award (including a 2011 Plan Award) expires, lapses or is terminated, converted into an award in respect of shares of another entity in connection with a spin-off or other similar event, exchanged for cash, surrendered, repurchased or canceled, in any case, in a manner that results in the Company acquiring the underlying shares at a price not greater than the price paid by the participant or not issuing the underlying shares, such unused shares subject to the award at such time will be available for future grants under the 2020 Plan;

- to the extent shares are tendered or withheld to satisfy the grant, exercise price or tax withholding obligation with respect to any award under the 2020 Plan or 2011 Plan Award, such tendered or withheld shares will be available for future grants under the 2020 Plan;
- to the extent shares subject to stock appreciation rights are not issued in connection with the stock settlement of SARs on exercise thereof, such shares will be available for future grants under the 2020 Plan;
- the payment of dividend equivalents in cash in conjunction with any outstanding awards or 2011 Plan Awards will not be counted against the shares available for issuance under the 2020 Plan; and
- shares issued in assumption of, or in substitution for, any outstanding awards of any entity acquired in any form of combination by us or any of our subsidiaries will not be counted against the shares available for issuance under the 2020 Plan.

Administration. The compensation committee of our board of directors is expected to administer the 2020 Plan unless our board of directors assumes authority for administration. The board of directors may delegate its powers to a committee, which, to the extent required to comply with Rule 16b-3, is intended to be comprised of "non-employee directors" for purposes of Rule 16b-3 under the Exchange Act. The 2020 Plan provides that the board or compensation committee may delegate its authority to grant awards other than to individuals subject to Section 16 of the Exchange Act or officers or directors to whom authority to grant awards has been delegated.

Subject to the terms and conditions of the 2020 Plan, the administrator has the authority to select the persons to whom awards are to be made, to determine the number of shares to be subject to awards and the terms and conditions of awards, and to make all other determinations and to take all other actions necessary or advisable for the administration of the 2020 Plan. The administrator is also authorized to adopt, amend or rescind rules relating to administration of the 2020 Plan. Our board of directors may at any time remove the compensation committee as the administrator and revest in itself the authority to administer the 2020 Plan. The full board of directors will administer the 2020 Plan with respect to awards to non-employee directors.

Eligibility. Awards under the 2020 Plan may be granted to individuals who are then our officers, employees or consultants or are the officers, employees or consultants of certain of our subsidiaries. Such awards also may be granted to our directors. However, only employees of our company or certain of our subsidiaries may be granted incentive stock options, or ISOs.

Awards. The 2020 Plan provides that the administrator may grant or issue stock options, SARs, restricted stock, restricted stock units, performance bonus awards, performance stock units, other stock- or cash-based awards and dividend equivalents, or any combination thereof. Each award will be set forth in a separate agreement with the person receiving the award and will indicate the type, terms and conditions of the award.

- *Nonstatutory Stock Options*, or NSOs, will provide for the right to purchase shares of our common stock at a specified price which may not be less than fair market value on the date of grant, and usually will become exercisable (at the discretion of the administrator) in one or more installments after the grant date, subject to the participant's continued employment or service with us and/or subject to the satisfaction of corporate performance targets and individual performance targets established by the administrator. NSOs may be granted for any term specified by the administrator that does not exceed ten years.
- *Incentive Stock Options*, or ISOs, will be designed in a manner intended to comply with the provisions of Section 422 of the Code and will be subject to specified restrictions contained in the Code. Among such restrictions, ISOs must have an exercise price of not less than the fair market value of a share of common stock on the date of grant, may only be granted to employees, and must not be exercisable after a period of ten years measured from the date of grant. In the case of an ISO granted to an individual who owns (or is deemed to own) at least 10% of the total combined voting power of all

classes of our capital stock, the 2020 Plan provides that the exercise price must be at least 110% of the fair market value of a share of common stock on the date of grant and the ISO must not be exercisable after a period of five years measured from the date of grant.

- *Restricted Stock* may be granted to any eligible individual and made subject to such restrictions as may be determined by the administrator. Restricted stock typically may be forfeited for no consideration or repurchased by us at the original purchase price if the conditions or restrictions on vesting are not met. In general, restricted stock may not be sold or otherwise transferred until restrictions are removed or expire. Purchasers of restricted stock, unlike recipients of options, will have voting rights and will have the right to receive dividends, if any, prior to the time when the restrictions lapse; however, extraordinary dividends will generally be placed in escrow, and will not be released until restrictions are removed or expire.
- *Restricted Stock Units* may be awarded to any eligible individual, typically without payment of consideration, but subject to vesting conditions based on continued employment or service or on performance criteria established by the administrator. Like restricted stock, restricted stock units may not be sold, or otherwise transferred or hypothecated, until vesting conditions are removed or expire. Unlike restricted stock, stock underlying restricted stock units will not be issued until the restricted stock units have vested, and recipients of restricted stock units generally will have no voting or dividend rights prior to the time when vesting conditions are satisfied.
- *Stock Appreciation Rights*, or SARs, may be granted in connection with stock options or other awards, or separately. SARs granted in connection with stock options or other awards typically will provide for payments to the holder based upon increases in the price of our common stock over a set exercise price. The exercise price of any SAR granted under the 2020 Plan must be at least 100% of the fair market value of a share of our common stock on the date of grant. SARs under the 2020 Plan will be settled in cash or shares of our common stock, or in a combination of both, at the election of the administrator.
- *Performance Bonus Awards and Performance Stock Units* are denominated in cash or shares/unit equivalents, respectively, and may be linked to one or more performance or other criteria as determined by the administrator.
- *Other Stock- or Cash-Based Awards* are awards of cash, fully vested shares of our common stock and other awards valued wholly or partially by referring to, or otherwise based on, shares of our common stock. Other stock- or cash-based awards may be granted to participants and may also be available as a payment form in the settlement of other awards, as standalone payments and as payment in lieu of base salary, bonus, fees or other cash compensation otherwise payable to any individual who is eligible to receive awards. The administrator will determine the terms and conditions of other stock- or cash-based awards, which may include vesting conditions based on continued service, performance and/or other conditions.
- *Dividend Equivalents* represent the right to receive the equivalent value of dividends paid on shares of our common stock and may be granted alone or in tandem with awards other than stock options or SARs. Dividend equivalents are converted to cash or shares by such formula and such time as determined by the administrator. In addition, dividend equivalents with respect to an awards subject to vesting will either (i) to the extent permitted by applicable law, not be paid or credited or (ii) be accumulated and subject to vesting to the same extent as the related award.

Any award may be granted as a performance award, meaning that the award will be subject to vesting and/or payment based on the attainment of specified performance goals.

Change in Control. In the event of a change in control, unless the administrator elects to terminate an award in exchange for cash, rights or other property, or cause an award to accelerate in full prior to the change in control, such award will continue in effect or be assumed or substituted by the acquirer, provided that any performance-based portion of the award will be subject to the terms and conditions of the applicable award

agreement. In the event the acquirer refuses to assume or replace awards granted, prior to the consummation of such transaction, awards issued under the 2020 Plan (other than any portion subject to performance-based vesting) will be subject to accelerated vesting such that 100% of such awards will become vested and exercisable or payable, as applicable. The administrator may also make appropriate adjustments to awards under the 2020 Plan and is authorized to provide for the acceleration, cash-out, termination, assumption, substitution or conversion of such awards in the event of a change in control or certain other unusual or nonrecurring events or transactions.

Adjustments of Awards. The administrator has broad discretion to take action under the 2020 Plan, as well as make adjustments to the terms and conditions of existing and future awards, to prevent the dilution or enlargement of intended benefits and facilitate necessary or desirable changes in the event of certain transactions and events affecting our common stock, such as stock dividends, stock splits, mergers, acquisitions, consolidations and other corporate transactions. In addition, in the event of certain non-reciprocal transactions with our stockholders known as "equity restructurings," the administrator will make equitable adjustments to the 2020 Plan and outstanding awards.

Amendment and Termination. The administrator may terminate, amend or modify the 2020 Plan at any time and from time to time. However, we must generally obtain stockholder approval to the extent required by applicable law, rule or regulation (including any applicable stock exchange rule), and generally no amendment may materially and adversely affect any outstanding award without the affected participant's consent. Notwithstanding the foregoing, an option may be amended to reduce the per share exercise price below the per share exercise price of such option on the grant date and options may be granted in exchange for, or in connection with, the cancellation or surrender of options having a higher per share exercise price without receiving additional stockholder approval.

No incentive stock options may be granted pursuant to the 2020 Plan after the tenth anniversary of the effective date of the 2020 Plan, and no additional annual share increases to the 2020 Plan's aggregate share limit will occur from and after such anniversary. Any award that is outstanding on the termination date of the 2020 Plan will remain in force according to the terms of the 2020 Plan and the applicable award agreement.

2011 Equity Incentive Plan

Our board of directors adopted, and our stockholders approved, the 2011 Plan effective as of July 31, 2011. The 2011 Plan was subsequently amended on multiple occasions to increase the number of shares issuable thereunder. The 2011 Plan provides for the grant of ISOs, NSOs, SARs, restricted stock, and restricted stock units. As of June 30, 2019, options to purchase 18,588,587 shares of our common stock at a weighted-average exercise price per share of $0.54 remained outstanding under the 2011 Plan. Following this offering and in connection with the effectiveness of our 2020 Plan, the 2011 Plan will terminate and no further awards will be granted under the 2011 Plan. However, all outstanding awards will continue to be governed by their existing terms.

Administration. Our board of directors or a committee thereof appointed by our board of directors has the authority to administer the 2011 Plan and the awards granted under it. The administrator's authority includes the authority to select the service providers to whom awards will be granted under the 2011 Plan, the number of shares to be subject to those awards under the 2011 Plan, and the terms and conditions of the awards granted. The administrator also has the authority to institute and determine the terms and conditions of a program under which all outstanding awards are surrendered or cancelled in exchange for awards of the same or a different type or in exchange for cash, participants would have the opportunity to transfer any outstanding awards to a financial institution or other person selected by the administrator, or the exercise price of the award is reduced or increased. In addition, the administrator has the authority to construe and interpret the 2011 Plan and to adopt rules for the administration, interpretation and application of the 2011 Plan that are consistent with the terms of the 2011 Plan.

Awards. The 2011 Plan provides that the administrator may grant or issue options, including ISOs and NSOs, SARs, restricted stock and restricted stock units to employees, consultants and directors; provided that only employees may be granted ISOs.

- *Stock Options*. The 2011 Plan provides for the grant of ISOs or NSOs. ISOs may be granted only to employees. NSOs may be granted to employees, directors or consultants. The exercise price of ISOs granted to employees who at the time of grant own stock representing more than 10% of the voting power of all classes of our common stock may not be less than 110% of the fair market value per share of our common stock on the date of grant, and the exercise price of ISOs granted to any other employees may not be less than 100% of the fair market value per share of our common stock on the date of grant. The exercise price of NSOs to employees, directors or consultants may not be less than 100% of the fair market value per share of our common stock on the date of grant.
- *Stock Appreciation Rights*. The 2011 Plan provides for the grant of SARs. Each SAR will be governed by a SAR agreement. The exercise price of SARs may not be less than 100% of the fair market value per share of our common stock on the date of grant.
- *Restricted Stock Awards*. The 2011 Plan provides for the grant of restricted stock awards. Each restricted stock award will be governed by a restricted stock award agreement, which will detail the restrictions on transferability, risk of forfeiture and other restrictions the administrator approves. In general, restricted stock may not be sold, transferred, pledged, hypothecated, margined or otherwise encumbered until restrictions are removed or expire. Holders of restricted stock, unlike recipients of other equity awards, will have voting rights and will have the right to receive dividends, if any, prior to the time when the restrictions lapse.
- *Restricted Stock Units*. The 2011 Plan provides that we may issue restricted stock unit awards which may be settled in either cash of common stock. Each restricted stock unit award will be governed by a restricted stock unit award agreement that will set forth any vesting conditions based on continued employment or service or on performance criteria established by the administrator. Unlike restricted stock, stock underlying restricted stock units will not be issued until the restricted stock units have vested, and recipients of restricted stock units generally will have no rights as a stockholder prior to the time when vesting conditions are satisfied.

Adjustments of Awards. In the event of any dividend or other distribution, recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, exchange of shares or other change in the corporate structure of the company affecting shares of common stock, the administrator will make adjustments to the number and class of shares available for issuance under the 2011 Plan and the number, class and price of shares subject to outstanding awards.

Change in Control. In the event of a merger or change in control, the administrator has discretion to determine the treatment of each outstanding award, and may provide that the awards will be assumed or substituted, that the awards will terminate or accelerate in full immediately prior to the change in control, or that the awards will terminate in exchange for cash or other property, or any combination of the foregoing. The administrator is not obligated to treat all outstanding awards in the same manner. In addition, in the event of a change in control where the acquirer does not assume or replace awards, prior to the consummation of such transaction, awards issued under the 2011 Plan will accelerate in full and any awards subject to performance-based vesting will be deemed achieved at 100% of target levels and all other terms and conditions met. Awards will be considered assumed for this purpose if, following the merger or change in control, the award represents the right to purchase or receive the per share consideration received in the merger or change in control by holders of common stock.

Amendment and Termination. Our board of directors may amend or terminate the 2011 Plan at any time, but no amendment will impair the rights of a holder of an outstanding award without the holder's consent. An amendment of the 2011 Plan will be subject to the approval of our stockholders, where such approval by our stockholders of an amendment is required by applicable law. Following this offering and in connection with the

effectiveness of our 2020 Plan, the 2011 Plan will terminate and no further awards will be granted under the 2011 Plan.

2020 Employee Stock Purchase Plan

We intend to adopt the 2020 Employee Stock Purchase Plan, which we refer to as our ESPP, which will be effective on the date immediately prior to the date the registration statement relating to this offering becomes effective. The ESPP is designed to allow our eligible employees to purchase shares of our common stock, at periodic intervals, with their accumulated payroll deductions. The ESPP is intended to qualify under Section 423 of the Code. The material terms of the ESPP, as it is currently contemplated, are summarized below.

Administration. Subject to the terms and conditions of the ESPP, our compensation committee will administer the ESPP. Our compensation committee can delegate administrative tasks under the ESPP to the services of an agent and/or employees to assist in the administration of the ESPP. The administrator will have the discretionary authority to administer and interpret the ESPP. Interpretations and constructions of the administrator of any provision of the ESPP or of any rights thereunder will be conclusive and binding on all persons. We will bear all expenses and liabilities incurred by the ESPP administrator.

Share Reserve. The maximum number of our shares of our common stock which will be authorized for sale under the ESPP is equal to the sum of (i) shares of common stock and (ii) an annual increase on the first day of each year beginning in 2021 and ending in 2030, equal to the lesser of (A) % of the shares of common stock outstanding (on an as converted basis) on the last day of the immediately preceding fiscal year and (B) such number of shares of common stock as determined by our board of directors; provided, however, no more than shares of our common stock may be issued under the ESPP. The shares reserved for issuance under the ESPP may be authorized but unissued shares or reacquired shares.

Eligibility. Employees eligible to participate in the ESPP for a given offering period generally include employees who are employed by us or one of our subsidiaries on the first day of the offering period, or the enrollment date. Our employees (and, if applicable, any employees of our subsidiaries) who customarily work less than five months in a calendar year or are customarily scheduled to work less than 20 hours per week will not be eligible to participate in the ESPP. Finally, an employee who owns (or is deemed to own through attribution) 5% or more of the combined voting power or value of all our classes of stock or of one of our subsidiaries will not be allowed to participate in the ESPP.

Participation. Employees will enroll under the ESPP by completing a payroll deduction form permitting the deduction from their compensation of at least 1% of their compensation but not more than % of their compensation. Such payroll deductions may be expressed as either a whole number percentage or a fixed dollar amount, and the accumulated deductions will be applied to the purchase of shares on each purchase date. However, a participant may not purchase more than shares in each offering period and may not accrue the right to purchase shares of common stock at a rate that exceeds $25,000 in fair market value of shares of our common stock (determined at the time the option is granted) for each calendar year the option is outstanding (as determined in accordance with Section 423 of the Code). The ESPP administrator has the authority to change these limitations for any subsequent offering period.

Offering. Under the ESPP, participants are offered the option to purchase shares of our common stock at a discount during a series of successive offering periods, the duration and timing of which will be determined by the ESPP administrator. However, in no event may an offering period be longer than 27 months in length.

The option purchase price will be the lower of 85% of the closing trading price per share of our common stock on the first trading date of an offering period in which a participant is enrolled or 85% of the closing trading price per share on the purchase date, which will occur on the last trading day of each offering period.

Unless a participant has previously canceled his or her participation in the ESPP before the purchase date, the participant will be deemed to have exercised his or her option in full as of each purchase date. Upon exercise, the participant will purchase the number of whole shares that his or her accumulated payroll deductions will buy at the option purchase price, subject to the participation limitations listed above.

A participant may cancel his or her payroll deduction authorization at any time prior to the end of the offering period. Upon cancellation, the participant will have the option to either (i) receive a refund of the participant's account balance in cash without interest or (ii) exercise the participant's option for the current offering period for the maximum number of shares of common stock on the applicable purchase date, with the remaining account balance refunded in cash without interest. Following at least one payroll deduction, a participant may also decrease (but not increase) his or her payroll deduction authorization once during any offering period. If a participant wants to increase or decrease the rate of payroll withholding, he or she may do so effective for the next offering period by submitting a new form before the offering period for which such change is to be effective.

A participant may not assign, transfer, pledge or otherwise dispose of (other than by will or the laws of descent and distribution) payroll deductions credited to a participant's account or any rights to exercise an option or to receive shares of our common stock under the ESPP, and during a participant's lifetime, options in the ESPP shall be exercisable only by such participant. Any such attempt at assignment, transfer, pledge or other disposition will not be given effect.

Adjustments upon Changes in Recapitalization, Dissolution, Liquidation, Merger or Asset Sale. In the event of any increase or decrease in the number of issued shares of our common stock resulting from a stock split, reverse stock split, stock dividend, combination or reclassification of the common stock, or any other increase or decrease in the number of shares of common stock effected without receipt of consideration by us, we will proportionately adjust the aggregate number of shares of our common stock offered under the ESPP, the number and price of shares which any participant has elected to purchase under the ESPP and the maximum number of shares which a participant may elect to purchase in any single offering period. If there is a proposal to dissolve or liquidate us, then the ESPP will terminate immediately prior to the consummation of such proposed dissolution or liquidation, and any offering period then in progress will be shortened by setting a new purchase date to take place before the date of our dissolution or liquidation. We will notify each participant of such change in writing at least 10 business days prior to the new exercise date. If we undergo a merger with or into another corporation or sell all or substantially all of our assets, each outstanding option will be assumed or an equivalent option substituted by the successor corporation or the parent or subsidiary of the successor corporation. If the successor corporation refuses to assume the outstanding options or substitute equivalent options, then any offering period then in progress will be shortened by setting a new purchase date to take place before the date of our proposed sale or merger. We will notify each participant of such change in writing at least 10 business days prior to the new exercise date.

Amendment and Termination. Our board of directors may amend, suspend or terminate the ESPP at any time. However, the board of directors may not amend the ESPP without obtaining stockholder approval within 12 months before or after such amendment to the extent required by applicable laws.

Director Compensation

We have not historically maintained a formal non-employee director compensation program. However, we have granted stock options to certain of our directors from time to time, and we provide reimbursement to our non-employee directors for their reasonable expenses incurred in attending meetings of our board of directors and committees of our board of directors. Our non-employee directors received no compensation from us during the year ended December 31, 2018. Mr. Love receives no additional compensation for his service as director. His compensation as our President and Chief Executive Officer is set forth in the Summary Compensation Table above.

2018 Director Compensation Table

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)	All Other Compensation ($)	Total ($)
Emmett Cunningham, M.D., Ph.D., M.P.H.	—	—	—	—
Carol Gallagher, Pharm.D.	—	—	—	—
Campbell Murray, M.D.	—	—	—	—
Muneer Satter	—	—	—	—
Ricky Sun, Ph.D.	—	—	—	—
Thomas G. Wiggans	—	—	—	—
William Young	—	—	—	—

As of December 31, 2018, Mr. Wiggans held an option to purchase 139,708 shares of our common stock, and Mr. Young held options to purchase an aggregate of 447,065 shares of our common stock. No other non-employee director held any options to purchase shares of our common stock or any other equity award as of December 31, 2018.

In January 2019, we granted to Messrs. Wiggans and Young options to purchase 59,986 and 191,956 shares of common stock, respectively, which vest as to 1/48th of the shares subject to the option on each monthly anniversary of December 12, 2018, subject to continued service.

We intend to approve and implement a compensation program for our non-employee directors, or the Director Compensation Program, to be effective in connection with the consummation of this offering.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The following includes a summary of transactions since January 1, 2016 and any currently proposed transactions to which we were or are expected to be a participant in which (i) the amount involved exceeded or will exceed $120,000, and (ii) any of our directors, executive officers or holders of more than 5% of our capital stock, or any affiliate or member of the immediate family of the foregoing persons, had or will have a direct or indirect material interest, other than compensation and other arrangements that are described under the section titled "Executive and Director Compensation."

Redeemable Convertible Preferred Stock Financings

Series B Redeemable Convertible Preferred Stock Financing

In June 2016, we entered into a Series B redeemable convertible preferred stock purchase agreement with various investors, pursuant to which we issued an aggregate of 38,778,090 shares of Series B redeemable convertible preferred stock at $1.15 per share for gross proceeds of approximately $44.6 million in two closings. The first closing occurred in June 2016, at which time we issued 26,974,965 shares of our Series B redeemable convertible preferred stock for gross proceeds of approximately $31.0 million. The second closing occurred in February 2018, at which time we issued an additional 11,803,125 shares of our Series B redeemable convertible preferred stock for gross proceeds of approximately $13.6 million.

The table below sets forth the number of shares of our Series B redeemable convertible preferred stock purchased by our executive officers, directors, holders of more than 5% of our capital stock and their affiliated entities or immediate family members. Each share of Series B redeemable convertible preferred stock in the table below will convert into one share of our common stock upon the completion of this offering.

Name(1)	Series B Redeemable Convertible Preferred Stock (#)	Aggregate Cash Purchase Price ($)
Entities affiliated with New Enterprise Associates(2)	14,039,383	16,145,291
Novartis Bioventures Ltd.(3)	8,406,103	9,667,018
Clarus Lifesciences III, L.P.(4)	8,370,685	9,626,288
Trusts and Other Entities affiliated with Muneer A. Satter(5)	4,656,855	5,355,382

(1) For additional information regarding these stockholders and their equity holdings, see the section titled "Principal Stockholders."

(2) Entities affiliated with New Enterprise Associates became beneficial owners of (in the aggregate) more than 5% of our outstanding capital stock upon the closing of the Series B redeemable convertible preferred stock financing. Dr. Carol Gallagher was designated to serve as a member of our board of directors by New Enterprise Associates 15, L.P. Dr. Gallagher is a partner at New Enterprise Associates, Inc.

(3) Novartis Bioventures Ltd. beneficially owned more than 5% of our outstanding capital stock at the time of the Series B redeemable convertible preferred stock financing. Dr. Campbell Murray is currently, and was at the time of the Series B redeemable convertible preferred stock financing, a member of our board of directors. Dr. Murray was designated to serve as a member of our board of directors by Novartis Bioventures Ltd. Dr. Murray is a Managing Director at Novartis Venture Fund, and, in such capacity, employed by a corporation that is an affiliate of Novartis Bioventures Ltd. Dr. Murray is expected to resign from our board of directors prior to the effectiveness of the registration statement of which this prospectus is a part.

(4) Clarus Lifesciences III, L.P. beneficially owned more than 5% of our outstanding capital stock at the time of the Series B redeemable convertible preferred stock financing. Dr. Emmett Cunningham is currently, and was at the time of the Series B redeemable convertible preferred stock financing, a member of our board of directors. Dr. Cunningham was designated to serve as a member of our board of directors by Clarus Lifesciences III, L.P. Dr. Cunningham is a Senior Managing Director of Blackstone Life Sciences, having joined as part of its acquisition of Clarus Ventures, LLC in December 2018. Dr. Cunningham was a Managing Director at Clarus Ventures, LLC from January 2017 to November 2018.

(5) Trusts and other entities affiliated with Muneer A. Satter beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the Series B redeemable convertible preferred stock financing. Mr. Satter is currently, and was at the time of the Series B redeemable convertible preferred stock financing, a member of our board of directors. Mr. Satter was designated to serve as a member of our board of directors by Satter Medical Technology Partners, L.P. and certain other affiliated entities. Mr. Satter is the founder and managing partner of Satter Medical Technology Partners, L.P. and Chairperson of Satter Investment Management LLC. Mr. Satter also manages the Satter Foundation.

Series C Redeemable Convertible Preferred Stock Financing

In December 2018, we entered into a Series C redeemable convertible preferred stock purchase agreement with various investors, pursuant to which we issued an aggregate of 55,555,546 shares of Series C redeemable convertible preferred stock at $1.35 per share for gross proceeds of approximately $75.0 million in two closings. The first closing occurred in December 2018, at which time we issued 33,333,329 shares of our Series C redeemable convertible preferred stock for gross proceeds of approximately $45.0 million. The second closing occurred in August 2019, at which time we issued an additional 22,222,217 shares of our Series C redeemable convertible preferred stock for gross proceeds of approximately $30.0 million.

The table below sets forth the number of shares of our Series C redeemable convertible preferred stock purchased by our executive officers, directors, holders of more than 5% of our capital stock and their affiliated entities or immediate family members. Each share of Series C redeemable convertible preferred stock in the table below will convert into one share of our common stock upon the completion of this offering.

Name(1)	Series C Redeemable Convertible Preferred Stock (#)	Aggregate Cash Purchase Price ($)
Entities affiliated with Bain Capital Life Sciences(2)	22,222,221	29,999,998
Clarus Lifesciences III, L.P.(3)	6,148,147	8,299,998
New Enterprise Associates 15, L.P.(4)	5,925,925	7,999,999
Satter Medical Technology Partners, L.P.(5)	5,537,036	7,474,999
Novartis Bioventures Ltd.(6)	4,444,443	5,999,998
Citadel Multi-Strategy Equities Master Fund Ltd.	7,407,406	9,999,998

(1) For additional information regarding these stockholders and their equity holdings, see the section titled “Principal Stockholders.”

(2) Entities affiliated with Bain Capital Life Sciences became beneficial owners of (in the aggregate) more than 5% of our outstanding capital stock upon the closing of the Series C redeemable convertible preferred stock financing. Dr. Ricky Sun was designated to serve as a member of our board of directors by Bain Capital Life Sciences Fund, L.P. Dr. Sun is a partner of Bain Capital Life Sciences.

(3) Clarus Lifesciences III, L.P. beneficially owned more than 5% of our outstanding capital stock at the time of the Series C redeemable convertible preferred stock financing. Dr. Emmett Cunningham is currently, and was at the time of the Series C redeemable convertible preferred stock financing, a member of our board of directors. Dr. Cunningham was designated to serve as a member of our board of directors by Clarus Lifesciences III, L.P. Dr. Cunningham is a Senior Managing Director of Blackstone Life Sciences, having joined as part of its acquisition of Clarus Ventures, LLC in December 2018. Dr. Cunningham was a Managing Director at Clarus Ventures, LLC from January 2017 to November 2018.

(4) Entities affiliated with New Enterprise Associates 15, L.P. beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the Series C redeemable convertible preferred stock financing. Dr. Carol Gallagher is currently, and was at the time of the Series C redeemable convertible preferred stock financing, a member of our board of directors. Dr. Gallagher was designated to serve as a member of our board of directors by New Enterprise Associates 15, L.P. Dr. Gallagher is a partner at New Enterprise Associates, Inc.

(5) Trusts and other entities affiliated with Muneer A. Satter beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the Series C financing. Mr. Muneer Satter is currently, and was at the time of the Series C redeemable convertible preferred stock financing, a member of our board of directors. Mr. Satter was designated to serve as a member of our board of directors by Satter Medical Technology Partners, L.P. and certain other affiliated entities. Mr. Satter is the founder and managing partner of Satter Medical Technology Partners, L.P. and Chairperson of Satter Investment Management LLC. Mr. Satter also manages the Satter Foundation.

(6) Novartis Bioventures Ltd. beneficially owned more than 5% of our outstanding capital stock at the time of the Series C redeemable convertible preferred stock financing. Dr. Campbell Murray is currently, and was at the time of the Series C redeemable convertible preferred stock financing, a member of our board of directors. Dr. Murray was designated to serve as a member of our board of directors by Novartis Bioventures Ltd. Dr. Murray is a Managing Director at Novartis Venture Fund, and, in such capacity, employed by a corporation that is an affiliate of Novartis Bioventures Ltd. Dr. Murray is expected to resign from our board of directors prior to the effectiveness of the registration statement of which this prospectus is a part.

Investors’ Rights Agreement

In June 2016 and December 2018, we entered into an amended and restated investors’ rights agreement with the purchasers of our outstanding redeemable convertible preferred stock, including entities with which certain of

our directors are affiliated. Following the consummation of this offering, the holders of approximately shares of our common stock, including the shares of common stock issuable upon the conversion of our Series A, Series A-1, Series B and Series C redeemable convertible preferred stock, are entitled to rights with respect to the registration of their shares under the Securities Act. For a more detailed description of these registration rights, see the section titled "Description of Capital Stock—Registration Rights." The investors' rights agreement also provides for a right of first refusal in favor of certain holders of redeemable convertible preferred stock with regard to certain issuances of our capital stock. The rights of first refusal will not apply to, and will terminate upon the consummation of, this offering.

Voting Agreement

In June 2016 and December 2018, we entered into an amended and restated voting agreement with certain holders of our common stock and redeemable convertible preferred stock. Upon the conversion of all outstanding shares of redeemable convertible preferred stock into common stock in connection with the consummation of this offering, the amended and restated voting agreement will terminate. For a description of the amended and restated voting agreement, see the section titled "Management—Board Composition—Voting Arrangements."

Right of First Refusal and Co-Sale Agreement

In June 2016 and December 2018, we entered into an amended and restated right of first refusal and co-sale agreement with certain holders of our common stock and redeemable convertible preferred stock. This agreement provides for rights of first refusal and co-sale relating to the shares of our common stock held by the parties to the agreement. Upon the consummation of this offering, the amended and restated right of first refusal and co-sale agreement will terminate.

Executive Officer and Director Compensation

See the section titled "Executive and Director Compensation" for information regarding the compensation of our directors and named executive officers.

Employment Agreements

We have entered into offer letter agreements with our executive officers that, among other things, provide for certain compensatory and change in control benefits, as well as severance benefits. For a description of these agreements with our named executive officers, see the section titled "Executive and Director Compensation—Executive Compensation Arrangements."

Indemnification Agreements

We have entered into indemnification agreements with certain of our current directors and officers, and intend to enter into new indemnification agreements with each of our current directors and officers before the completion of this offering. Our amended and restated certificate of incorporation and our amended and restated bylaws provide that we will indemnify our directors and officers to the fullest extent permitted by applicable law. See the section titled "Management—Limitation on Liability and Indemnification Matters."

Policies and Procedures for Related Person Transactions

Prior to the consummation of this offering, our board of directors will adopt 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, as of August 30, 2019, information regarding beneficial ownership of our capital stock by:

- each person, or group of affiliated persons, known by us to beneficially own more than 5% of our common stock;
- each of our named executive officers;
- each of our directors; and
- all of our executive officers and directors as a group.

The percentage ownership information under the column titled “Before Offering” is based on 115,569,451 shares of common stock outstanding as of August 30, 2019 assuming the conversion of all outstanding shares of our redeemable convertible preferred stock into an aggregate of 111,748,065 shares of common stock upon the completion of this offering. The percentage ownership information under the column titled “After Offering” is based on the sale of shares of common stock in this offering (assuming an initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus). The percentage ownership information assumes no exercise of the underwriters’ option to purchase additional shares.

Beneficial ownership is determined according to the rules of the SEC and generally means that a person has beneficial ownership of a security if he, she or it possesses sole or shared voting or investment power of that security. In addition, shares of common stock issuable upon the exercise of stock options or warrants that are currently exercisable or exercisable within 60 days of August 30, 2019 are included in the following table. These shares are deemed to be outstanding and beneficially owned by the person holding those options or warrants for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person. The information contained in the following table does not necessarily indicate beneficial ownership for any other purpose. Unless otherwise indicated, the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them, subject to applicable community property laws.

Unless otherwise noted below, the address for each beneficial owner listed in the table below is c/o Annexon, Inc., 180 Kimball Way, Suite 200, South San Francisco, California 94080.

Name of Beneficial Owner	Number of Shares Beneficially Owned (#)	Percentage of Shares Beneficially Owned	
		Before Offering (%)	After Offering (%)
Greater than 5% Stockholders:			
Clarus Lifesciences III, L.P.(1)	20,185,499	17.5%	
Entities affiliated with New Enterprise Associates(2)	19,965,308	17.3%	
Novartis Bioventures Ltd.(3)	18,564,832	16.1%	
Entities affiliated with Bain Capital Life Sciences(4)	22,222,221	19.2%	
Trusts and Other Entities affiliated with Muneer A. Satter(5)	12,648,847	10.9%	
Citadel Multi-Strategy Equities Master Fund Ltd.(6)	7,407,406	6.4%	
Named Executive Officers and Directors:			
Douglas Love, Esq.(7)	3,259,370	2.7%	
Mark Smith(8)	0	*	
Ted Yednock, Ph.D.(9)	958,829	*	
William Young(10)	20,537,920	17.7%	
Campbell Murray, M.D.(11)	18,564,832	16.1%	
Muneer Satter(12)	12,648,847	10.9%	
Emmett Cunningham, M.D., Ph.D., M.P.H.(13)	20,185,499	17.5%	
Carol Gallagher, Pharm.D.(14)	19,965,308	17.3%	
Ricky Sun(15)	22,222,221	19.2%	
Thomas G. Wiggans(16)	105,635	*	
All executive officers and directors as a group (12 persons)	98,262,962	81.7%	

* Represents beneficial ownership of less than 1%.

(1) Consists of (i) 5,666,667 shares of common stock issuable upon the conversion of the Series A-1 redeemable convertible preferred stock, (ii) 8,370,685 shares of common stock issuable upon the conversion of the Series B redeemable convertible preferred stock and (iii) 6,148,147 shares of common stock issuable upon the conversion of the Series C redeemable convertible preferred stock, collectively, the Clarus Shares directly held by Clarus Lifesciences III, L.P. The address for Clarus Lifesciences III, L.P. is 101 Main Street, Suite 1210, Cambridge, Massachusetts 02142. Clarus Lifesciences III, L.P. is the record owner of the Clarus Shares. Clarus Ventures III GP, L.P. is the sole general partner of Clarus Lifesciences III, L.P. Blackstone Clarus III L.L.C. is the sole general partner of Clarus Ventures III GP, L.P. The sole member of Blackstone Clarus III L.L.C. is Blackstone Holdings II L.P. The sole general partner of Blackstone Holdings II L.P. is Blackstone Holdings I/II GP L.L.C. The sole member of Blackstone Holdings I/II GP L.L.C. is The Blackstone Group Inc. The sole holder of the Class C common stock of The Blackstone Group Inc. is Blackstone Group Management L.L.C. Blackstone Group Management L.L.C. is wholly-owned by Blackstone's senior managing directors and controlled by its founder, Stephen A. Schwarzman. Each of such entities and Mr. Schwarzman may be deemed to beneficially own the shares beneficially owned by Clarus Lifesciences III, L.P., but each (other than Clarus Lifesciences III, L.P.) disclaims beneficial ownership of such shares.

(2) Consists of (i) 17,392 shares of common stock issuable upon the conversion of the Series B redeemable convertible preferred stock directly held by NEA Ventures 2016, L.P., or Ventures 16, (ii) 14,021,991 shares of common stock issuable upon the conversion of the Series B redeemable convertible preferred stock directly held by New Enterprise Associates 15, L.P., or NEA 15 and (iii) 5,925,925 shares of common stock issuable upon the conversion of the Series C redeemable convertible preferred stock directly held by NEA 15. The securities directly held by NEA 15 are indirectly held by NEA Partners 15, L.P., or Partners 15, which is the sole general partner of NEA 15; NEA 15 GP, LLC, or NEA 15 LLC, which is the sole general partner of Partners 15; and each of the individual managers of NEA 15 LLC. The individual Managers of NEA 15 LLC, or the NEA 15 Managers, are Peter J. Barris, Forest Baskett, Anthony A. Florence, Mohamad Makhzoumi, Joshua Makower, David M. Mott, Scott D. Sandell and Peter Sonsini. NEA Partners 15, NEA 15 LLC and the NEA 15 Managers share voting and dispositive power with regard to the shares owned directly by NEA 15. The securities directly held by Ventures 16 are indirectly held by Karen P. Welsh, the general partner of Ventures 16. All indirect holders of the above referenced shares disclaim beneficial ownership of all applicable shares except to the extent of their actual pecuniary interest therein. The address for the above referenced entities is 1954 Greenspring Drive, Suite 600, Timonium, Maryland 21093.

(3) Consists of (i) 5,714,286 shares of common stock issuable upon the conversion of the Series A-1 redeemable convertible preferred stock, (ii) 8,406,103 shares of common stock issuable upon the conversion of the Series B redeemable convertible preferred stock and (iii) 4,444,443 shares of common stock issuable upon the conversion of the Series C redeemable convertible preferred stock directly held by Novartis Bioventures Ltd. The board of directors of Novartis Bioventures Ltd. has sole voting and investment control and power over

such securities. None of the members of its board of directors has individual voting or investment power with respect to such securities and each disclaims beneficial ownership of such securities. Dr. Campbell Murray, a member of our board of directors, is also an employee of a corporation that is affiliated with Novartis Bioventures Ltd. Dr. Murray disclaims beneficial ownership of the securities held by Novartis Bioventures Ltd. except to the extent of his pecuniary interest arising as a result of his employment by such affiliate of Novartis Bioventures Ltd. Novartis Bioventures Ltd. is a Swiss corporation and an indirectly owned subsidiary of Novartis AG. The address for Novartis Bioventures Ltd. is Lichtstrasse 35, CH-4056 Basel.

(4) Consists of (i) 20,158,775 shares of common stock issuable upon the conversion of the Series C redeemable convertible preferred stock directly held by Bain Capital Life Sciences Fund, L.P., or BC LS, and (ii) 2,063,446 shares of common stock issuable upon the conversion of the Series C redeemable convertible preferred stock directly held by BCIP Life Sciences Associates, LP, or BCIP LS and, together with BC LS, the Bain Capital Life Sciences Entities. Bain Capital Life Sciences Investors, LLC, whose managers are Jeffrey Schwartz and Adam Koppel, is the ultimate general partner of BC LS and governs the investment strategy and decision-making process with respect to investments held by BCIP LS. As a result, each of Bain Capital Life Sciences Investors, LLC, Mr. Schwartz and Dr. Koppel may be deemed to share voting and dispositive power over the shares held by the Bain Capital Life Sciences Entities. The address of the Bain Capital Life Sciences Entities is c/o Bain Capital Life Sciences, LP, 200 Clarendon Street, Boston, Massachusetts 02116.

(5) Consists of (i) 952,381 shares of common stock issuable upon the conversion of the Series A-1 redeemable convertible preferred stock directly held by the Muneer A. Satter Revocable Trust for which Muneer A. Satter serves as trustee and, in such capacity, has sole voting and dispositive power over all such shares, (ii) 2,142,857 shares of common stock issuable upon the conversion of the Series A-1 redeemable convertible preferred stock directly held by various other trusts and other entities for which Muneer A. Satter serves as trustee, investment advisor or manager and, in such capacity, has sole voting and dispositive power over all such shares, (iii) 1,162,022 shares of common stock issuable upon the conversion of the Series B redeemable convertible preferred stock directly held by the Muneer A. Satter Revocable Trust for which Muneer A. Satter serves as trustee and, in such capacity, has sole voting and dispositive power over all such shares, (iv) 2,854,551 shares of common stock issuable upon the conversion of the Series B redeemable convertible preferred stock directly held by various other trusts and other entities for which Muneer A. Satter serves as trustee, investment advisor or manager and, in such capacity, has sole voting and dispositive power over all such shares, and (v) 5,537,036 shares of common stock issuable upon the conversion of the Series C redeemable convertible preferred stock directly held by Satter Medical Technology Partners, L.P. for which Muneer A. Satter has sole voting and dispositive power over all such shares collectively, the Satter Investors. Mr. Satter disclaims beneficial ownership of all shares included in clauses (ii), (iv) and (v) of this footnote (5), except to the extent of his pecuniary interest. The address of the Satter Investors is c/o Satter Management Co., L.P., 676 North Michigan Avenue, Suite 4000, Chicago, Illinois 60611.

(6) Consists of 7,407,406 shares of common stock issuable upon the conversion of the Series C redeemable convertible preferred stock directly held by Citadel Multi-Strategy Equities Master Fund Ltd., or Citadel. Citadel Advisors LLC, or Citadel Advisors, acts as the portfolio manager of Citadel. Citadel Advisors Holdings LP, or CAH, is the sole member of Citadel Advisors, and Citadel GP LLC, or CGP, is the general partner of CAH. Kenneth Griffin owns a controlling interest in CGP and may be deemed to share voting and dispositive power over shares held by Citadel. The address for this entity is c/o Citadel Advisors, 601 Lexington Avenue, New York, New York 10022.

(7) Consists of 3,259,370 shares of common stock that may be acquired pursuant to the exercise of stock options within 60 days of August 30, 2019.

(8) Consists of 252,111 shares of common stock that may be acquired pursuant to the exercise of stock options within 60 days of August 30, 2019.

(9) Consists of 958,829 shares of common stock that may be acquired pursuant to the exercise of stock options within 60 days of August 30, 2019.

(10) Consists of 352,421 shares of common stock that may be acquired pursuant to the exercise of stock options within 60 days of August 30, 2019 and the shares described in footnote (1) above. Mr. Young disclaims beneficial ownership of all such shares except to the extent of his pecuniary interests therein.

(11) Consists of the shares described in footnote (3) above. Dr. Murray disclaims beneficial ownership of all such shares except to the extent of his pecuniary interests therein.

(12) Consists of the shares described in footnote (5) above.

(13) Consists of the shares described in footnote (1) above. Dr. Cunningham disclaims beneficial ownership of all such shares except to the extent of his pecuniary interests therein.

(14) Dr. Gallagher, a member of our board of directors, is employed as a Partner at New Enterprise Associates, Inc., has no voting or investment power over the shares owned of record by NEA 15 or Ventures 16 referenced in footnote (2) above, and disclaims beneficial ownership of the shares held by NEA 15 and Ventures 16.

(15) Consists of the shares described in footnote (4) above. Dr. Sun disclaims beneficial ownership of all such shares except to the extent of his pecuniary interests therein.

(16) Consists of 105,635 shares of common stock that may be acquired pursuant to the exercise of stock options within 60 days of August 30, 2019.

DESCRIPTION OF CAPITAL STOCK

The following summary describes our capital stock and the material provisions of our amended and restated certificate of incorporation and our amended and restated bylaws, which will become effective immediately prior to the completion of this offering, the amended and restated investors' rights agreement to which we and certain of our stockholders are parties and of the Delaware General Corporation Law. Because the following is only a summary, it does not contain all of the information that may be important to you. For a complete description, you should refer to our amended and restated certificate of incorporation, amended and restated bylaws and amended and restated investors' rights agreement, copies of which have been filed as exhibits to the registration statement of which this prospectus is part.

General

Upon the completion of this offering and the filing of our amended and restated certificate of incorporation, our authorized capital stock will consist of shares of common stock, par value $0.001 per share, and shares of preferred stock, par value $0.001 per share.

Common Stock

Outstanding Shares

As of August 30, 2019, we had 115,569,451 shares of common stock outstanding, held of record by 44 stockholders, assuming the conversion of all of our outstanding shares of redeemable convertible preferred stock into 111,748,065 shares of common stock in connection with the completion of this offering. On August 30, 2019, we issued and sold 22,222,217 shares of our Series C redeemable convertible preferred stock in satisfaction of the second tranche of our Series C financing, which will convert into 22,222,217 shares of common stock in connection with the completion of this offering.

Voting Rights

Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Our stockholders do not have cumulative voting rights in the election of directors. Accordingly, holders of a majority of the voting shares are able to elect all of the directors. In addition, the affirmative vote of holders of 66 2/3% of the voting power of all of the then outstanding voting stock will be required to take certain actions, including amending certain provisions of our amended and restated certificate of incorporation, including the provisions relating to amending our amended and restated bylaws, the classified board and director liability.

Dividends

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of our common stock are entitled to receive dividends as may be declared from time to time by our board of directors out of legally available funds.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any then outstanding shares of preferred stock.

Rights and Preferences

Holders of our common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of

the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of our preferred stock that we may designate and issue in the future.

Fully Paid and Nonassessable

All of our outstanding shares of common stock are, and the shares of common stock to be issued in this offering will be, fully paid and nonassessable.

Preferred Stock

Upon the completion of this offering, all of our currently outstanding shares of redeemable convertible preferred stock will convert into common stock and we will not have any shares of preferred stock outstanding. Immediately prior to the completion of this offering, our amended and restated certificate of incorporation will be amended and restated to delete all references to such shares of redeemable convertible preferred stock. From and after the consummation of this offering, our board of directors will have the authority, without further action by our stockholders, to issue up to shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting, or the designation of, such series, any or all of which may be greater than the rights of our common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon our liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of our company or other corporate action. Immediately after consummation of this offering, no shares of preferred stock will be outstanding, and we have no present plan to issue any shares of preferred stock.

Stock Options

As of June 30, 2019, we had outstanding options to purchase an aggregate of 18,588,587 shares of our common stock, with a weighted-average exercise price of $0.54 per share. For additional information regarding terms of our equity incentive plans, see the section titled “Executive and Director Compensation—Equity Incentive Plans.”

Registration Rights

Upon the completion of this offering and subject to the lock-up agreements entered into in connection with this offering and federal securities laws, certain holders of shares of our common stock, including those shares of our common stock that will be issued upon the conversion of our redeemable convertible preferred stock in connection with this offering, will initially be entitled to certain rights with respect to registration of such shares under the Securities Act. These shares are referred to as registrable securities. The holders of these registrable securities possess registration rights pursuant to the terms of our amended and restated investors’ rights agreement and are described in additional detail below. The registration of shares of our common stock pursuant to the exercise of the registration rights described below would enable the holders to trade these shares without restriction under the Securities Act when the applicable registration statement is declared effective. We will pay the registration expenses, other than underwriting discounts, selling commissions and stock transfer taxes, of the shares registered pursuant to the demand, piggyback and Form S-3 registrations described below.

Generally, in an underwritten offering, the managing underwriter, if any, has the right, subject to specified conditions and limitations, to limit the number of shares the holders may include. The demand, piggyback and Form S-3 registration rights described below will terminate upon the earliest of (i) with respect to each stockholder, such date, on or after the closing of this offering, on which all registrable shares held by such stockholder may immediately be sold during any 90-day period pursuant to Rule 144 of the Securities Act, or Rule 144, and (ii) the occurrence of a deemed liquidation event, as defined in our amended and restated certificate of incorporation, as currently in effect.

Demand Registration Rights

Upon the completion of this offering, holders of up to shares of our common stock issuable upon conversion of outstanding redeemable convertible preferred stock will be entitled to certain demand registration rights. Beginning 180 days following the effectiveness of the registration statement of which this prospectus is a part, certain major investors holding, collectively, 60% of registrable securities may, on not more than two occasions, request that we register all or a portion of their shares, subject to certain specified exceptions. If any of these holders exercises its demand registration rights, then holders of shares of our common stock issuable upon the shares of our redeemable convertible preferred stock in connection with this offering will be entitled to register their shares, subject to specified conditions and limitations in the corresponding offering.

Piggyback Registration Rights

In connection with this offering, holders of up to shares of our common stock issuable upon conversion of outstanding redeemable convertible preferred stock are entitled to their rights to notice of this offering and to include their shares of registrable securities in this offering. The requisite percentage of these stockholders are expected to waive all such stockholders' rights to notice of this offering and to include their shares of registrable securities in this offering. In the event that we propose to register any of our securities under the Securities Act in another offering, either for our own account or for the account of other security holders, the holders of registrable securities will be entitled to certain "piggyback" registration rights allowing them to include their shares in such registration, subject to specified conditions and limitations.

S-3 Registration Rights

Upon the completion of this offering, the holders of shares of our common stock issuable upon conversion of outstanding redeemable convertible preferred stock will initially be entitled to certain Form S-3 registration rights. Certain major investors holding at least 30% of registrable securities may, on not more than two registrations on Form S-3 within any 12-month period, request that we register all or a portion of their shares on Form S-3 if we are qualified to file a registration statement on Form S-3, subject to specified exceptions. Such request for registration on Form S-3 must cover securities with an aggregate offering price which equals or exceeds $1.0 million, net of selling expenses. The right to have such shares registered on Form S-3 is further subject to other specified conditions and limitations.

Anti-Takeover Effects of Provisions of Delaware Law and Our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Certain provisions of Delaware law and our amended and restated certificate of incorporation and our amended and restated bylaws that will become effective immediately prior to the completion of this offering contain provisions that could make the following transactions more difficult: acquisition of us by means of a tender offer; acquisition of us by means of a proxy contest or otherwise; or removal of our incumbent officers and directors. It is possible that these provisions could make it more difficult to accomplish or could deter transactions that stockholders may otherwise consider to be in their best interest or in our best interests, including transactions that might result in a premium over the market price for our shares.

These provisions, summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging these proposals because negotiation of these proposals could result in an improvement of their terms.

Delaware Anti-Takeover Statute

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits persons deemed "interested stockholders" from engaging in a "business combination" with a publicly-held Delaware corporation for three years following the date these persons become interested stockholders unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. Generally, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation's voting stock. Generally, a "business combination" includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. The existence of this provision may have an anti-takeover effect with respect to transactions not approved in advance by the board of directors, such as discouraging takeover attempts that might result in a premium over the market price of our common stock.

Undesignated Preferred Stock

The ability to authorize undesignated preferred stock will make it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to effect a change in control of our company. These and other provisions may have the effect of deterring hostile takeovers or delaying changes in control or management of our company.

Special Stockholder Meetings

Our amended and restated certificate of incorporation and amended and restated bylaws will provide that a special meeting of stockholders may be called at any time by our board of directors, but such special meetings may not be called by the stockholders or any other person or persons.

Requirements for Advance Notification of Stockholder Nominations and Proposals

Our amended and restated 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.

Elimination of Stockholder Action by Written Consent

Our amended and restated certificate of incorporation will eliminate the right of stockholders to act by written consent without a meeting.

Classified Board; Election and Removal of Directors; Filling Vacancies

Effective upon the consummation of this offering, our board of directors will be divided into three classes, divided as nearly as equal in number as possible. The directors in each class will serve for a three-year term, one class being elected each year by our stockholders, with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Because our stockholders do not have cumulative voting rights, our stockholders holding a majority of the shares of common stock outstanding will be able to elect all of our directors. Our amended and restated certificate of incorporation will provide for the removal of any of our directors only for cause and requires a stockholder vote by the holders of at least a 66 2/3% of the voting power of the then outstanding voting stock. For more information on the classified board, see the section titled "Management—Board Composition." Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of the board, may only be filled by a resolution of the board of directors unless the board of directors determines that such vacancies shall be filled by the stockholders.

This system of electing and removing directors and filling vacancies may tend to discourage a third party from making a tender offer or otherwise attempting to obtain control of us because it generally makes it more difficult for stockholders to replace a majority of the directors.

Choice of Forum

Our amended and restated certificate of incorporation and bylaws will provide 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 exclusive forum for the following types of actions or proceedings under Delaware statutory or common law: any derivative action or proceeding brought on our behalf; any action asserting a claim of breach of fiduciary duty owed by any of our directors, officers or stockholders to us or to our stockholders; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws (as either may be amended from time to time); or any action asserting a claim against us that is governed by the internal affairs doctrine. As a result, any action brought by any of our stockholders with regard to any of these matters will need to be filed in the Court of Chancery of the State of Delaware and cannot be filed in any other jurisdiction; provided that, the exclusive forum provision will not apply to suits brought to enforce any liability or duty created by the Securities Act, the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction; and provided further 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. Nothing in our amended and restated certificate of incorporation and bylaws preclude stockholders that assert claims under the Securities Act or the Exchange Act from bringing such claims in state or federal court, subject to applicable law.

If any action the subject matter of which is within the scope described above is filed in a court other than a court located within the State of Delaware, or a Foreign Action, in the name of any stockholder, such stockholder shall be deemed to have consented to the personal jurisdiction of the state and federal courts located within the State of Delaware in connection with any action brought in any such court to enforce the applicable provisions of our amended and restated certificate of incorporation and having service of process made upon such stockholder in any such action by service upon such stockholder's counsel in the Foreign Action as agent for such stockholder. Although our amended and restated certificate of incorporation and bylaws will contain the choice of forum provision described above, it is possible that a court could find that such a provision is inapplicable for a particular claim or action or that such provision is unenforceable.

This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims, although our stockholders will not be deemed to have waived our compliance with federal securities laws and the rules and regulations thereunder.

Amendment of Charter Provisions

The amendment of any of the above provisions in our amended and restated certificate of incorporation, except for the provision making it possible for our board of directors to issue undesignated preferred stock, would require approval by a stockholder vote by the holders of at least a 66 2/3% of the voting power of the then outstanding voting stock.

The provisions of the Delaware General Corporation Law, our amended and restated certificate of incorporation and our amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Limitation on Liability and Indemnification

For a discussion of limitation on liability and indemnification, see the section titled "Management—Limitation on Liability and Indemnification Matters."

Nasdaq Global Market Listing

We intend to apply to list our common stock on the Nasdaq Global Market under the trading symbol "ANNX."

Transfer Agent and Registrar

Upon completion of this offering, the transfer agent and registrar for our common stock will be . The transfer agent and registrar's address is .

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock, and a liquid trading market for our common stock may not develop or be sustained after this offering. Future sales of our common stock, including shares issued upon the exercise of outstanding options, in the public market after the completion of this offering, or the perception that those sales may occur, could adversely affect the prevailing market price for our common stock from time to time or impair our ability to raise equity capital in the future. As described below, only a limited number of shares of our common stock will be available for sale in the public market for a period of several months after the completion of this offering due to contractual and legal restrictions on resale described below. Future sales of our common stock in the public market either before or after restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price of our common stock at such time and our ability to raise equity capital at a time and price we deem appropriate.

Sale of Restricted Shares

Based on the number of shares of our common stock outstanding as of June 30, 2019, upon the closing of this offering and reflecting (i) the sale and issuance of 22,222,217 shares of our Series C redeemable convertible preferred stock on August 30, 2019 in satisfaction of the second tranche of our Series C financing, (ii) assuming the conversion of all of our outstanding redeemable convertible preferred stock into an aggregate of 111,748,065 shares of our common stock in connection with the completion of this offering, (iii) assuming no exercise of the underwriters' option to purchase additional shares of common stock, and (iv) assuming no exercise of outstanding options, we will have outstanding an aggregate of approximately shares of common stock. Of these shares, all of the shares of common stock to be sold in this offering will be freely tradable in the public market without restriction or further registration under the Securities Act, unless the shares are held by any of our "affiliates" as such term is defined in Rule 144 of the Securities Act, or Rule 144, or subject to lock-up agreements. All remaining shares of common stock held by existing stockholders immediately prior to the consumption of this offering will be "restricted securities," as such term is defined in Rule 144. These restricted securities were issued and sold by us in private transactions and are eligible for public sale only if registered under the Securities Act or if they qualify for an exemption from registration under the Securities Act, including the exemptions provided by Rule 144 or Rule 701 of the Securities Act, or Rule 701, which rules are summarized below.

As a result of the lock-up agreements referred to below and the provisions of Rule 144 and Rule 701, based on the number of shares of our common stock outstanding (calculated as of June 30, 2019 on the basis of the assumptions described above), the shares of our common stock (excluding the shares sold in this offering) that will be available for sale in the public market are as follows:

Approximate Number of Shares	First Date Available For Sale Into Public Market
shares	181 days after the date of this prospectus, upon expiration of the lock-up agreements referred to below, subject in some cases to applicable volume, manner of sale and other limitations under Rule 144 and Rule 701.

We may issue shares of common stock from time to time as consideration for future acquisitions, investments or other corporate purposes. In the event that any such acquisition, investment or other transaction is significant, the number of shares of common stock that we may issue may in turn be significant. We may also grant registration rights covering those shares of common stock issued in connection with any such acquisition and investment.

In addition, the shares of common stock reserved for future issuance under our 2020 Plan will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements, a registration statement under the Securities Act or an exemption from registration, including Rule 144 and Rule 701.

Rule 144

Under Rule 144, as currently in effect, once we have been subject to the public company reporting requirements of the Exchange Act for at least 90 days, and we are current in our Exchange Act reporting at the time of sale, a person (or persons whose shares are required to be aggregated) who is not deemed to have been one of our "affiliates" for purposes of Rule 144 at any time during the 90 days preceding a sale and who has beneficially owned restricted securities within the meaning of Rule 144 for at least six months, including the holding period of any prior owner other than one of our "affiliates," is entitled to sell those shares in the public market (subject to the lock-up agreement referred to below, if applicable) without complying with the manner of sale, volume limitations or notice provisions of Rule 144, but 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 "affiliates," then such person is entitled to sell such shares in the public market without complying with any of the requirements of Rule 144 (subject to the lock-up agreement referred to below, if applicable).

In general, under Rule 144, as currently in effect, once we have been subject to the public company reporting requirements of the Exchange Act for at least 90 days, our "affiliates," as defined in Rule 144, who have beneficially owned the shares proposed to be sold for at least six months, are entitled to sell in the public market, upon expiration of any applicable lock-up agreements and within any three-month period, a number of those shares of our common stock that does not exceed the greater of:

- 1% of the number of shares of common stock then outstanding, which will equal approximately shares of common stock immediately upon the completion of this offering (calculated as of June 30, 2019 on the basis of the assumptions described above); or
- the average weekly trading volume of our common stock on Nasdaq during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Such sales under Rule 144 by our "affiliates" or persons selling shares on behalf of our "affiliates" are also subject to certain manner of sale provisions, notice requirements and requirements related to the availability of current public information about us. Notwithstanding the availability of Rule 144, the holders of substantially all of our restricted securities have entered into lock-up agreements as referenced above and their restricted securities will become eligible for sale (subject to the above limitations under Rule 144) upon the expiration of the restrictions set forth in those agreements.

Rule 701

In general, under Rule 701 as currently in effect, any of our employees, directors, officers, consultants or advisors who acquired common stock from us in connection with a written compensatory stock or option plan or other written agreement in compliance with Rule 701 before the effective date of the registration statement of which this prospectus is a part (to the extent such common stock is not subject to a lock-up agreement) and who are not our "affiliates" as defined in Rule 144 during the immediately preceding 90 days, is entitled to rely on Rule 701 to resell such shares beginning 90 days after the date of this prospectus in reliance on Rule 144, but without complying with the notice, manner of sale, public information requirements or volume limitation provisions of Rule 144. Persons who are our "affiliates" may resell those shares beginning 90 days after the date of this prospectus without compliance with minimum holding period requirements under Rule 144 (subject to the terms of the lock-up agreement referred to below, if applicable).

Lock-Up Agreements

In connection with this offering, we, our directors, our executive officers and holders of substantially all of our other outstanding shares of common stock or securities convertible into or exchangeable for shares of our common stock outstanding upon the completion of this offering, have agreed, subject to certain limited

exceptions, with the underwriters not to directly or indirectly offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of or hedge any shares of our common stock or any options to purchase shares of our common stock, or any securities convertible into or exchangeable for shares of common stock during the period from the date of this prospectus continuing through the date 180 days after the date of this prospectus, except with the prior written consent of J.P. Morgan Securities LLC, BofA Securities, Inc. and Cowen and Company, LLC, and certain other limited exceptions. These agreements are described in the section titled "Underwriting."

In addition to the restrictions contained in the lock-up agreements described above, we have entered into agreements with certain security holders, including the amended and restated investors' rights agreement, our standard form of option agreement, our standard form of restricted stock agreement and our standard form of restricted stock purchase agreement, that contain market stand-off provisions or incorporate market stand-off provisions from our equity incentive plan imposing restrictions on the ability of such security holders to offer, sell or transfer our equity securities for a period of 180 days following the date of this prospectus.

Registration Rights

Upon the completion of this offering, the holders of up to 111,748,065 shares of our common stock will be entitled to rights with respect to the registration of their shares under the Securities Act, subject to the lock-up agreements described under "—Lock-Up Agreements" above. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares purchased by affiliates, immediately upon the effectiveness of the registration statement of which this prospectus is a part. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock. The requisite percentage of these stockholders will waive all such stockholders' rights to notice of this offering and to include their shares of registrable securities in this offering. See the section titled "Description of Capital Stock—Registration Rights."

Equity Incentive Plans

We intend to file with the SEC a registration statement on Form S-8 under the Securities Act covering the shares of common stock reserved for issuance under our 2020 Plan and our ESPP. Such registration statement is expected to be filed and become effective as soon as practicable after the completion of this offering. Accordingly, shares registered under such registration statement will be available for sale in the open market following its effective date, subject to Rule 144 volume limitations and the lock-up agreements described above, if applicable.

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following discussion is a summary of the material U.S. federal income tax consequences to Non-U.S. Holders (as defined below) of the purchase, ownership and disposition of our common stock issued pursuant to this offering, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or non-U.S. tax laws are not discussed. This discussion is based on the U.S. Internal Revenue Code of 1986, as amended, or the Code, Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the U.S. Internal Revenue Service, or the IRS, in each case in effect as of the date hereof. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a Non-U.S. Holder. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a contrary position to that discussed below regarding the tax consequences of the purchase, ownership and disposition of our common stock.

This discussion is limited to Non-U.S. Holders that 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 U.S. federal income tax consequences relevant to a Non-U.S. Holder's particular circumstances, including the impact of the Medicare contribution tax on net investment income. In addition, it does not address consequences relevant to Non-U.S. Holders subject to special rules, including, without limitation:

- U.S. expatriates and former citizens or long-term residents of the United States;
- persons subject to the alternative minimum tax;
- persons holding our common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies, and other financial institutions;
- brokers, dealers or traders in securities;
- "controlled foreign corporations," "passive foreign investment companies" and corporations that accumulate earnings to avoid U.S. federal income tax;
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell our common stock under the constructive sale provisions of the Code;
- tax-qualified retirement plans; and
- "qualified foreign pension funds" as defined in Section 897(l)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds.

If an entity treated as a partnership for U.S. federal income tax purposes holds our common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding our common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

THIS DISCUSSION IS NOT TAX ADVICE. INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

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 neither a "U.S. person" nor an entity treated as a partnership for U.S. federal income tax purposes. A U.S. person is any person that, for U.S. federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation 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 that (i) is subject to the primary supervision of a U.S. court and all substantial decisions of which are subject to the control of one or more "United States persons" (within the meaning of Section 7701(a)(30) of the Code), or (ii) has a valid election in effect to be treated as a United States person for U.S. federal income tax purposes.

Distributions

As described in the section titled "Dividend Policy," we do not currently intend to pay any cash dividends on our capital stock in the foreseeable future. However, if we do make distributions of cash or 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 not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and first be applied against and reduce a Non-U.S. Holder's adjusted tax basis in its common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below under "—Sale or Other Taxable Disposition."

Subject to the discussion below on effectively connected income, dividends paid to a Non-U.S. Holder 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, provided the Non-U.S. Holder furnishes a valid IRS Form W-8BEN or W-8BEN-E (or other applicable documentation) certifying qualification for the lower treaty rate). A Non-U.S. Holder that does not timely furnish the required documentation, but that qualifies 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 their entitlement to benefits under any applicable tax treaties.

If dividends paid to a Non-U.S. Holder are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the United States to which such dividends are attributable), the Non-U.S. Holder will be exempt from the U.S. federal withholding tax described above. To claim the exemption, the Non-U.S. Holder must furnish to the applicable withholding agent a valid IRS Form W-8ECI, certifying that the dividends are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States.

Any such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular rates. A Non-U.S. Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected dividends, as adjusted for certain items. Non-U.S. Holders should consult their tax advisors regarding any applicable tax treaties that may provide for different rules.

Sale or Other Taxable Disposition

Subject to the discussions below regarding backup withholding, a Non-U.S. Holder will not be subject to U.S. federal income tax on any gain realized upon the sale or other taxable disposition of our common stock unless:

- the gain is effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the United States to which such gain is attributable);
- 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, or USRPI, by reason of our status as a U.S. real property holding corporation, or USRPHC, for U.S. federal income tax purposes.

Gain described in the first bullet point above generally will be subject to U.S. federal income tax on a net income basis at the regular rates. A Non-U.S. Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items.

Gain described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty), which may be offset by certain U.S. source capital losses of the Non-U.S. Holder (even though the individual is not considered a resident of the United States), provided the Non-U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses.

With respect to the third bullet point above, we believe we currently are not, and do not anticipate becoming, a USRPHC. Because the determination of whether we are a USRPHC depends, however, on the fair market value of our USRPIs relative to the fair market value of our non-U.S. real property interests and our other business assets, there can be no assurance we currently are not a USRPHC or will not become one in the future. Even if we are or were to become a USRPHC, gain arising from the sale or other taxable disposition by a Non-U.S. Holder will not be subject to U.S. federal income tax if our common stock is "regularly traded," as defined by applicable Treasury Regulations, on an established securities market, and such Non-U.S. Holder owned, actually and constructively, 5% or less of our common stock throughout the shorter of the five-year period ending on the date of the sale or other taxable disposition or the Non-U.S. Holder's holding period.

Non-U.S. Holders should consult their tax advisors regarding any applicable tax treaties that may provide for different rules.

Information Reporting and Backup Withholding

Payments of dividends on our common stock will not be subject to backup withholding, provided the Non-U.S. Holder certifies its non-U.S. status, such as by furnishing a valid IRS Form W-8BEN, W-8BEN-E or W-8ECI, or otherwise establishes an exemption. However, information returns are required to be filed with the IRS in connection with any dividends on our common stock paid to the Non-U.S. Holder, regardless of whether any tax was actually withheld. In addition, proceeds of the sale or other taxable disposition of our common stock within the United States or conducted through certain U.S.-related brokers generally will not be subject to backup withholding or information reporting if the applicable withholding agent receives the certification described above or the Non-U.S. Holder otherwise establishes an exemption. Proceeds of a disposition of our common stock conducted through a non-U.S. office of a non-U.S. broker that does not have certain enumerated relationships with the United States generally will not be subject to backup withholding or information reporting.

Copies of information returns that are filed with the IRS may also be made available under the provisions of an applicable treaty or agreement to the tax authorities of the country in which the Non-U.S. Holder resides or is established.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a Non-U.S. Holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

Additional Withholding Tax on Payments Made to Foreign Accounts

Withholding taxes may be imposed under Sections 1471 to 1474 of the Code (such Sections commonly referred to as the Foreign Account Tax Compliance Act, or FATCA, on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax may be imposed on dividends on, or (subject to the proposed Treasury Regulations discussed below) gross proceeds from the sale or other disposition of, our common stock paid to a "foreign financial institution" or a "non-financial foreign entity" (each as defined in the Code), unless (i) the foreign financial institution undertakes certain diligence and reporting obligations, (ii) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (iii) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (i) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain "specified United States persons" or "United States owned foreign entities" (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on certain payments to non-compliant foreign financial institutions and certain other account holders. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules.

Under the applicable Treasury Regulations and administrative guidance, withholding under FATCA generally applies to payments of dividends on our common stock. While withholding under FATCA would have applied also to payments of gross proceeds from the sale or other disposition of stock on or after January 1, 2019, recently proposed Treasury Regulations eliminate FATCA withholding on payments of gross proceeds entirely. Taxpayers generally may rely on these proposed Treasury Regulations until final Treasury Regulations are issued.

Prospective investors should consult their tax advisors regarding the potential application of withholding under FATCA to their investment in our common stock.

UNDERWRITING

We are offering the shares of common stock described in this prospectus through a number of underwriters. J.P. Morgan Securities LLC, BofA Securities, Inc. and Cowen and Company, LLC are acting as joint book-running managers of the offering and as representatives of the underwriters. We have entered into an underwriting agreement with the underwriters. 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	
BofA Securities, Inc.	
Cowen and Company, LLC	
Total	

The underwriters are committed to purchase all the shares of common stock 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 stock 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. After the initial offering of the shares to the public, if all of the shares of common stock are not sold at the initial public offering price, the underwriters may change the offering price and the other selling terms. Sales of 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 relating to the clearance of this offering with the Financial Industry Regulatory Authority, Inc. in an amount up to $.

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, subject to certain exceptions, (i) offer, pledge, announce the intention to sell, 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, hedge, or otherwise dispose of, directly or indirectly, or file with the Securities and Exchange Commission a registration statement under the Securities Act of 1933, as amended, or the Securities Act, relating to, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing, or (ii) enter into any swap, hedging, 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, BofA Securities, Inc. and Cowen and Company, LLC for a period of 180 days after the date of this prospectus.

Our directors and executive officers, and substantially all of our securityholders have entered into lock-up agreements with the underwriters prior to the commencement of this offering pursuant to which each of these persons or entities, with limited exceptions, for a period of 180 days after the date of this prospectus, may not, without the prior written consent of J.P. Morgan Securities LLC, BofA Securities, Inc. and Cowen and Company, LLC, (i) offer, pledge, announce the intention to sell, 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, hedge, 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 directors, executive officers, managers and members in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant) or (ii) enter into any swap, hedging, or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the common stock or such other securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of common stock or such other securities, in cash or otherwise, or (iii) make any demand for or exercise any right with respect to the registration of any shares of our common stock or any security convertible into or exercisable or exchangeable for our common stock.

The restrictions described in the immediately preceding paragraph do not apply to, subject to certain additional limitations, among other items:

(i) the securities to be sold by the securityholder pursuant to the underwriting agreement for this offering;

(ii) transfers of securities as a bona fide gift or gifts;

(iii) transfers or dispositions of securities to any trust for the direct or indirect benefit of the securityholder or the immediate family of the securityholder;

(iv) transfers or dispositions of securities to any corporation, partnership, limited liability company or other entity all of the beneficial ownership interests of which are held by the securityholder or the immediate family of the securityholder;

(v) transfers or dispositions of securities by will, other testamentary document or intestate succession to the legal representative, heir, beneficiary or a member of the immediate family of the securityholder;

(vi) redeemable distributions of securities to partners, members or stockholders of the securityholder;

(vii) transfers to the securityholder's affiliates or to any investment fund or other entity controlled or managed by, controlling or managing, or under common control with, the securityholder; and

(viii) transfers pursuant to a bona fide third party tender offer, merger, consolidation or other similar transaction made to all holders of our common stock and involving a change of control of our company approved by the board of directors of our company, provided that in the event that the tender offer, merger, consolidation or other such transaction is not completed, the securities owned by the securityholder shall remain subject to the restrictions contained in the lock-up agreement;

provided that in the case of any transfer or distribution pursuant to clauses (ii), (iii), (iv), (v), (vi) or (vii) above, each transferee, donee or distributee shall execute and deliver to the representatives a lock-up agreement; and provided, further, that in the case of any transfer, disposition or distribution pursuant to clauses (ii), (iii), (iv), (v), (vi) or (vii) above, no filing by any party under Section 16 of the Exchange Act, or other public announcement shall be required or shall be made voluntarily in connection with such transfer or distribution and any such transfer or distribution shall not involve a disposition for value.

Furthermore, securityholders may, subject to certain additional limitations, without the prior written consent of J.P. Morgan Securities LLC, BofA Securities, Inc. and Cowen and Company, LLC (i) exercise on a cash basis of any option to purchase shares of common stock granted under any stock incentive plan or stock purchase plan, provided that the underlying shares of common stock shall continue to be subject to the restrictions on transfer set forth in the lock-up agreement; (ii) establish a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of common stock, provided that such plan does not provide for any transfers of common stock during the lock-up period; (iii) transfer or dispose of shares of common stock acquired in this offering or on the open market following this offering; (iv) transfer or surrender to us shares of common stock (or any security convertible into common stock) (A) pursuant to a right of first refusal described in this prospectus with respect to transfers of such shares of common stock or other securities, or (B) to us for purposes of exercising or settling (including for the payment of tax withholdings due as a result of such exercise or settlement) on a "net exercise," "net settlement" or "cashless" basis any equity award, provided such equity award was granted under our stock incentive plan or stock purchase plan; and (v) transfer or dispose of securities by operation of law pursuant to a qualified domestic order or in connection with a divorce settlement or other court order.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act.

We intend to apply to list our shares of common stock on the Nasdaq Global Market under the trading symbol "ANNX."

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 the 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, 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 the Nasdaq Global Market, 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 shares of our common stock, or that the shares will trade in the public market at or above the initial public offering price.

Other Relationships

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.

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.

Notice to Prospective Investors in the European Economic Area

In relation to each member state of the European Economic Area, or each, a "Member State," no shares have been offered or will be offered pursuant to the offering to the public in that Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Member State or, where appropriate, approved in another Member State and notified to the competent authority in that Member State, all in accordance with the Prospectus Regulation), except that offers of shares may be made to the public in that Member State at any time under the following exemptions under the Prospectus Regulation:

(i) to any legal entity which is a qualified investor as defined under the Prospectus Regulation;

(ii) 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 underwriters for any such offer; or

(iii) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of shares shall require the Company or any underwriter 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 any shares in any Member 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 "Prospectus Regulation" means Regulation (EU) 2017/1129.

Notice to Prospective Investors in the United Kingdom

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 the Prospectus Directive) (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, or 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 shares in the United Kingdom within the meaning of the Financial Services and Markets Act 2000 (as amended).

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.

Notice to Prospective Investors in 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 underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Notice to Prospective Investors in Switzerland

The shares may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or SIX, or on any other stock exchange or regulated trading facility in Switzerland. This document does not constitute a prospectus within the meaning of, and has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the Company or the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA and the offer of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

Notice to Prospective Investors in the Dubai International Financial Centre

This document relates to an Exempt Offer in accordance with the Markets Rules 2012 of the Dubai Financial Services Authority, or DFSA. This document 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 supplement 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 document you should consult an authorized financial advisor.

In relation to its use in the Dubai International Financial Centre, or DIFC, this document 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.

Notice to Prospective Investors in the United Arab Emirates

The shares have not been, and are not being, publicly offered, sold, promoted or advertised in the United Arab Emirates (including the Dubai International Financial Centre) other than in compliance with the laws of the United Arab Emirates (and the Dubai International Financial Centre) governing the issue, offering and sale of securities. Further, this prospectus does not constitute a public offer of securities in the United Arab Emirates

(including the Dubai International Financial Centre) and is not intended to be a public offer. This prospectus has not been approved by or filed with the Central Bank of the United Arab Emirates, the Securities and Commodities Authority or the Dubai Financial Services Authority.

Notice to Prospective Investors in Australia

This prospectus:

- does not constitute a product disclosure document or a prospectus under Chapter 6D.2 of the Corporations Act 2001 (Cth), or the Corporations Act;
- has not been, and will not be, lodged with the Australian Securities and Investments Commission, or ASIC, as a disclosure document for the purposes of the Corporations Act and does not purport to include the information required of a disclosure document for the purposes of the Corporations Act; and
- may only be provided in Australia to select investors who are able to demonstrate that they fall within one or more of the categories of investors, available under section 708 of the Corporations Act, or Exempt Investors.

The shares may not be directly or indirectly offered for subscription or purchased or sold, and no invitations to subscribe for or buy the shares may be issued, and no draft or definitive offering memorandum, advertisement or other offering material relating to any shares may be distributed in Australia, except where disclosure to investors is not required under Chapter 6D of the Corporations Act or is otherwise in compliance with all applicable Australian laws and regulations. By submitting an application for the shares, you represent and warrant to us that you are an Exempt Investor.

As any offer of shares under this document will be made without disclosure in Australia under Chapter 6D.2 of the Corporations Act, the offer of those securities for resale in Australia within 12 months may, under section 707 of the Corporations Act, require disclosure to investors under Chapter 6D.2 if none of the exemptions in section 708 applies to that resale. By applying for the shares you undertake to us that you will not, for a period of 12 months from the date of issue of the shares, offer, transfer, assign or otherwise alienate those shares to investors in Australia except in circumstances where disclosure to investors is not required under Chapter 6D.2 of the Corporations Act or where a compliant disclosure document is prepared and lodged with ASIC.

Notice to Prospective Investors in Japan

The shares have not been and will not be registered pursuant to Article 4, Paragraph 1 of the Financial Instruments and Exchange Act. Accordingly, none of the shares nor any interest therein may be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any “resident” of Japan (which term as used herein 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 or for the benefit of a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and any other applicable laws, regulations and ministerial guidelines of Japan in effect at the relevant time.

Notice to Prospective Investors in Hong Kong

The shares have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (i) to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong), or the SFO, of Hong Kong and any rules made thereunder; or (ii) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong, or the CO or which do not constitute an

offer to the public within the meaning of the CO. No advertisement, invitation or document relating to the shares has been or may be issued or has been or may be in the possession of any person for the purposes of issue, 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 of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the SFO and any rules made thereunder.

Notice to Prospective Investors in 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 shares may not be circulated or distributed, nor may the shares 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, as modified or amended from time to time including by any subsidiary legislation as may be applicable at the relevant time, or together, 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 shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(i) 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

(ii) 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 or securities-based derivatives contracts (each term as defined in Section 2(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 shares 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; or

(D) as specified in Section 276(7) of the SFA.

Notice to Prospective Investors in 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.

Notice to Prospective Investors in Saudi Arabia

This document 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 CMA, pursuant to resolution number 2-11-2004 dated 4 October 2004 as amended by resolution

number 1-28-2008, as amended (the "CMA Regulations"). The CMA does not make any representation as to the accuracy or completeness of this document 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 document, you should consult an authorized financial adviser.

Notice to Prospective Investors in the British Virgin Islands

The shares are not being, and may not be offered to the public or to any person in the British Virgin Islands for purchase or subscription by or on behalf of the Company. The shares may be offered to companies incorporated under the BVI Business Companies Act, 2004 (British Virgin Islands), or BVI Companies, but only where the offer will be made to, and received by, the relevant BVI Company entirely outside of the British Virgin Islands.

Notice to Prospective Investors in China

This prospectus will not be circulated or distributed in the PRC and the shares will not be offered or sold, and 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.

Notice to Prospective Investors in 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 the 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.

Notice to Prospective Investors in Malaysia

No prospectus or other offering material or document in connection with the offer and sale of the shares has been or will be registered with the Securities Commission of Malaysia, or Commission, for the Commission's approval pursuant to the Capital Markets and Services Act 2007. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Malaysia other than (i) a closed end fund approved by the Commission; (ii) a holder of a Capital Markets Services License; (iii) a person who acquires the shares, as principal, if the offer is on terms that the shares may only be acquired at a consideration of not less than RM250,000 (or its equivalent in foreign currencies) for each transaction; (iv) an individual whose total net personal assets or total net joint assets with his or her spouse exceeds RM3 million (or its equivalent in foreign currencies), excluding the value of the primary residence of the individual; (v) an individual who has a gross annual income exceeding RM300,000 (or its equivalent in foreign currencies) per annum in the preceding twelve months; (vi) an individual who, jointly with his or her spouse, has a gross annual income of RM400,000

(or its equivalent in foreign currencies), per annum in the preceding twelve months; (vii) a corporation with total net assets exceeding RM10 million (or its equivalent in a foreign currencies) based on the last audited accounts; (viii) a partnership with total net assets exceeding RM10 million (or its equivalent in foreign currencies); (ix) a bank licensee or insurance licensee as defined in the Labuan Financial Services and Securities Act 2010; (x) an Islamic bank licensee or takaful licensee as defined in the Labuan Financial Services and Securities Act 2010; and (xi) any other person as may be specified by the Commission; provided that, in the each of the preceding categories (i) to (xi), the distribution of the shares is made by a holder of a Capital Markets Services License who carries on the business of dealing in securities. The distribution in Malaysia of this prospectus is subject to Malaysian laws. This prospectus does not constitute and may not be used for the purpose of public offering or an issue, offer for subscription or purchase, invitation to subscribe for or purchase any securities requiring the registration of a prospectus with the Commission under the Capital Markets and Services Act 2007.

Notice to Prospective Investors in 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.

Notice to Prospective Investors in 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 (as amended or re-enacted), or the South African Companies Act) is being made in connection with the issue of the shares in South Africa. Accordingly, this document 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) authorised financial service providers under South African law; (v) financial institutions recognised 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.

Notice to Prospective Investors in Israel

We have not taken any action to permit a public offering of our shares outside the United States. Solicitation of our shares, however, will be made in certain countries in a manner that will not require the publication of a prospectus under the laws of the country. Persons outside the United States who come into possession of this prospectus must inform themselves about and observe any restrictions relating to the offering of our shares and the distribution of this prospectus outside the United States.

Notwithstanding the above, the offering of our shares is available to investors listed in the First Supplement of the Israeli Securities Law of 1968, as amended. A prospectus has not been prepared or filed, and will not be prepared or filed, in Israel relating to the shares offered hereunder. The shares cannot be resold in Israel other than to investors listed in the First Supplement of the Israeli Securities Law of 1968, as amended purchasing for their own account and not for distribution or resale purposes. No action will be taken in Israel that would permit an offering of the shares offered hereunder, or the distribution of any offering document or any other material to the public in Israel. This registration statements has not been reviewed or approved by the Israel Securities Authority. Any materials provided to an investor in Israel may not be reproduced or used for any other purpose, nor be furnished to any other person other than those to whom copies have been provided directly by the Issuer or the Dealer(s). The shares will not be traded on the TASE. Nothing in the above should be considered as the rendering of a recommendation or advice, including investment advice or investment marketing under the Israeli Law For Regulation of Investment Advice, Investment Marketing and Investment Portfolio Management, 1995, to purchase any shares and in purchasing the shares, the investors acknowledge that they have expertise and experience in financial and business matters so as to be capable of evaluating the risks and merits of the purchase of the shares.

LEGAL MATTERS

The validity of the issuance of our common stock offered in this prospectus will be passed upon for us by Latham & Watkins LLP, Menlo Park, California. Certain legal matters in connection with this offering will be passed upon for the underwriters by Cooley LLP, San Diego, California.

EXPERTS

The consolidated financial statements of Annexon, Inc. as of December 31, 2017 and 2018, and for each of the years in the two-year period ended December 31, 2018, have been included herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, appearing elsewhere herein, and upon the authority of said 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, including exhibits and schedules, under the Securities Act, with respect to the shares of common stock being offered by this prospectus. This prospectus, which constitutes part of the registration statement, does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and the common stock offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

You may read our SEC filings, including this registration statement, over the Internet at the SEC's website at www.sec.gov. Upon the completion of this offering, we will be subject to the information reporting requirements of the Exchange Act and we will file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available for review at the SEC's website referred to above. We also maintain a website at www.annexonbio.com, at which, following the completion 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. Information contained on or accessible through our website is not a part of this prospectus or the registration statement of which it forms a part, and the inclusion of our website address in this prospectus is an inactive textual reference only.

ANNEXON, INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors
Annexon, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Annexon, Inc. (the Company) as of December 31, 2017 and 2018, the related consolidated statements of operations, comprehensive loss, redeemable convertible preferred stock and stockholders' deficit, and cash flows for each of the years in the two year period ended December 31, 2018, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2018, and the results of its operations and its cash flows for each of the years in the two year period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated 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 the 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 and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as the Company's auditor since 2016.

San Francisco, California
August 27, 2019

ANNEXON, INC.
Consolidated Balance Sheets
(in thousands, except share and per share amounts)

	December 31, 2017	December 31, 2018
Assets		
Current assets:		
Cash and cash equivalents	$ 2,966	$ 44,175
Prepaid expenses and other current assets	1,927	1,531
Total current assets	4,893	45,706
Property and equipment, net	2,816	2,345
Other long-term assets	112	98
Total assets	$ 7,821	$ 48,149
Liabilities, Redeemable Convertible Preferred Stock and Stockholders' Deficit		
Current liabilities:		
Accounts payable	$ 1,524	$ 1,271
Accrued liabilities	1,074	1,713
Deferred rent, current	318	342
Total current liabilities	2,916	3,326
Deferred rent	2,145	1,803
Redeemable convertible preferred stock liability	—	5,140
Total liabilities	5,061	10,269
Commitments and contingencies (Note 7)		
Redeemable convertible preferred stock, $0.001 par value, 56,192,520 and 119,155,472 shares authorized as of December 31, 2017 and 2018, respectively; 44,389,394 and 89,525,848 shares issued and outstanding as of December 31, 2017 and 2018, respectively; liquidation preference of $49,240 and $107,814 as of December 31, 2017 and 2018, respectively	48,971	102,082
Stockholders' Deficit:		
Common stock, $0.001 par value; 69,000,000 and 150,000,000 shares authorized as of December 31, 2017 and 2018, respectively; 3,140,526 and 3,808,699 shares issued and outstanding as of December 31, 2017 and 2018, respectively	3	4
Additional paid-in capital	905	1,257
Accumulated other comprehensive loss	(26)	(66)
Accumulated deficit	(47,093)	(65,397)
Total stockholders' deficit	(46,211)	(64,202)
Total liabilities, redeemable convertible preferred stock and stockholders' deficit	$ 7,821	$ 48,149

See accompanying notes to consolidated financial statements.

ANNEXON, INC.
Consolidated Statements of Operations
(in thousands, except share and per share amounts)

	Year Ended December 31,	
	2017	2018
Operating expenses:		
Research and development	$ 17,853	$ 15,528
General and administrative	2,624	3,619
Total operating expenses	20,477	19,147
Loss from operations	(20,477)	(19,147)
Gain on remeasurement of redeemable convertible preferred stock liability	—	260
Other income, net	1,770	584
Net loss before taxes	(18,707)	(18,303)
Provision for income taxes	1	1
Net loss	(18,708)	(18,304)
Accretion on redeemable convertible preferred stock	87	176
Net loss attributable to common stockholders	$ (18,795)	$ (18,480)
Net loss per share attributable to common stockholders, basic and diluted	$ (6.16)	$ (5.21)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted	3,051,792	3,548,177
Pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)		$
Weighted-average shares used in computing pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)		

See accompanying notes to consolidated financial statements.

ANNEXON, INC.
Consolidated Statements of Comprehensive Loss
(in thousands)

	Year Ended December 31,	
	2017	2018
Net loss	$(18,708)	$(18,304)
Other comprehensive loss:		
Foreign currency translation adjustment	(24)	(40)
Comprehensive loss	$(18,732)	$(18,344)

See accompanying notes to consolidated financial statements.

ANNEXON, INC.
Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Deficit
(in thousands, except share amounts)

	Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Cost	Shares	Cost				
Balances as of December 31, 2016	44,389,394	$ 48,884	2,911,610	$ 3	$ 549	$ (2)	$ (28,385)	$ (27,835)
Accretion on redeemable convertible preferred stock	—	87	—	—	(87)	—	—	(87)
Stock option exercises	—	—	228,916	—	42	—	—	42
Stock-based compensation	—	—	—	—	401	—	—	401
Foreign currency translation adjustment	—	—	—	—	—	(24)	—	(24)
Net loss	—	—	—	—	—	—	(18,708)	(18,708)
Balances as of December 31, 2017	44,389,394	48,971	3,140,526	3	905	(26)	(47,093)	(46,211)
Issuance of Series B redeemable convertible preferred stock, net of issuance costs of $22	11,803,125	13,552	—	—	—	—	—	—
Issuance of Series C redeemable convertible preferred stock, net of issuance costs of $217 and redeemable convertible preferred stock liability of $5.4 million	33,333,329	39,383	—	—	—	—	—	—
Accretion on redeemable convertible preferred stock	—	176	—	—	(176)	—	—	(176)
Stock option exercises	—	—	668,173	1	120	—		121
Stock-based compensation	—	—	—	—	408	—	—	408
Foreign currency translation adjustment	—	—	—	—	—	(40)	—	(40)
Net loss	—	—	—	—	—	—	(18,304)	(18,304)
Balances as of December 31, 2018	89,525,848	$102,082	3,808,699	$ 4	$ 1,257	$ (66)	$ (65,397)	$ (64,202)

See accompanying notes to consolidated financial statements.

ANNEXON, INC.
Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31,	
	2017	2018
Operating activities:		
Net loss	$(18,708)	$(18,304)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	271	488
Stock-based compensation	401	408
Gain on remeasurement of redeemable convertible preferred stock liability	—	(260)
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(1,645)	396
Other long-term assets	(17)	14
Accounts payable	144	(253)
Accrued liabilities	196	639
Deferred rent	98	(318)
Net cash used in operating activities	(19,260)	(17,190)
Investing activities:		
Purchases of property and equipment	(567)	(17)
Net cash used in investing activities	(567)	(17)
Financing activities:		
Proceeds from the exercise common stock options	42	121
Proceeds from issuance of redeemable convertible preferred stock, net of issuance costs	—	58,335
Net cash provided by financing activities	42	58,456
Net (decrease) increase in cash and cash equivalents	(19,785)	41,249
Effect of exchange rate changes on cash and cash equivalents	(24)	(40)
Cash and cash equivalents at beginning of year	22,775	2,966
Cash and cash equivalents at end of year	$ 2,966	$ 44,175
Supplemental disclosure of non-cash investing and financing activities:		
Cash paid for income taxes	$ 1	$ 1
Recognition of fair value of redeemable convertible preferred stock liability upon issuance of redeemable convertible preferred stock	$ —	$ 5,400
Accretion on redeemable convertible preferred stock	$ 87	$ 176
Cash paid by landlord for tenant improvements	$ 2,365	$ —

See accompanying notes to consolidated financial statements.

ANNEXON, INC.
Notes to Consolidated Financial Statements

1. Organization

Annexon, Inc. (the "Company") is a clinical-stage biopharmaceutical company targeting C1q and initiating molecules of the classical complement pathway to develop transformative therapies for autoimmune and neurodegenerative disorders of the body, eye and brain. The Company is located in South San Francisco, California and was incorporated in Delaware in March 2011.

The Company's wholly-owned subsidiary, Annexon Biosciences Australia Pty Ltd (the "Subsidiary"), is a proprietary limited company incorporated in 2016 and domiciled in Australia. The Subsidiary is also engaged in research and development activities in support of its parent company.

Liquidity

Since inception, the Company has been involved primarily in performing research and development activities, conducting clinical trials, hiring personnel, and raising capital to support and expand these activities. The Company has experienced losses and negative cash flows from operations since its inception and, as of December 31, 2018, had an accumulated deficit of $65.4 million and cash and cash equivalents of $44.2 million.

In December 2018, the Company completed a Series C redeemable convertible preferred stock financing raising $75.0 million with the first closing of $45.0 million occurring on December 7, 2018 and the second closing to occur subject to the Company achieving defined milestones (Note 8). During the third quarter of 2019, the Company achieved the defined milestones, triggering the obligation to fund the second closing of $30.0 million. The Company intends to raise additional capital through the issuance of additional equity, and potentially through strategic alliances with partner companies and/or debt financing. If financing is not available at adequate levels, the Company may need to reevaluate its operating plans. Based on projected activities, management projects that cash and cash equivalents on hand and the funds associated with the Series C second closing are sufficient to support operations for at least the next 12 months following issuance of these financial statements. Management expects to continue to incur losses and negative cash flows from operations for at least the next several years.

2. Basis of Presentation and Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported expenses during the reporting period. On an ongoing basis, management evaluates its estimates, including but not limited to the fair value of common stock, redeemable convertible preferred stock, redeemable convertible preferred stock liability, and stock options, income taxes, and certain accruals. The Company evaluates its estimates and assumptions on an ongoing basis using historical experience and other factors and adjusts those estimates and assumptions when facts and circumstances dictate. Actual results could differ from those estimates.

Principles of Consolidation

The consolidated financial statements include the operations of Annexon, Inc. and its wholly owned subsidiary and include the results of operations and cash flows of these entities. All intercompany balances and transactions have been eliminated in consolidation.

ANNEXON, INC.
Notes to Consolidated Financial Statements

Segments

The Company's chief operating decision maker is its Chief Executive Officer. The Chief Executive Officer reviews financial information on an aggregate basis for the purposes of evaluating financial performance and allocating the Company's resources. Accordingly, the Company has determined that it operates in one segment.

Cash and Cash Equivalents

The Company considers all highly liquid instruments with an original maturity of three months or less at time of purchase to be cash equivalents. Cash equivalents, which includes amounts invested in money market funds, are stated at fair value.

Property and Equipment, Net

Property and equipment are carried at cost less accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives of the respective assets. Depreciation begins at the time the asset is placed in service. Maintenance and repairs are charged to operations as incurred. Upon sale or retirement of assets, the cost and related accumulated depreciation are removed from the balance sheet and the resulting gain or loss is reflected in operations in the period realized.

The useful lives of the property and equipment are as follows:

Laboratory equipment	5 years
Office and computer equipment	3 years
Leasehold improvements	Shorter of remaining lease term or estimated useful life

Impairment of Long-Lived Assets

The Company evaluates its long-lived assets, including property and equipment, for impairment whenever events or changes in circumstances indicate that the carrying amount of these asset may not be recoverable. Recoverability of these assets is measured by comparison of the carrying amount of each asset to the future undiscounted cash flows the asset is expected to generate over its remaining life. When indications of impairment are present and the estimated undiscounted future cash flows from the use of these assets is less than the assets' carrying value, the related assets will be written down to fair value. There were no impairments of the Company's long-lived assets for the periods presented.

Commitments and Contingencies

Liabilities for loss contingencies arising from claims, assessments, litigation, fines, and penalties and other sources are recorded when it is probable that a liability has been incurred and the amount can be reasonably estimated. Legal costs incurred in connection with loss contingencies are expensed as incurred.

Redeemable Convertible Preferred Stock Liability

The obligation to issue additional shares of the Company's Series C redeemable convertible preferred stock at a future date was determined to be a freestanding financial instrument that should be accounted for as a liability. At initial recognition, the Company recorded the redeemable convertible preferred stock liability on the balance sheet at its estimated fair value. The liability is subject to remeasurement at each balance sheet date, with changes in fair value recognized as gain (loss) on remeasurement of redeemable convertible preferred stock

liability on the statement of operations. Upon settlement of the redeemable convertible preferred stock liability, the Company remeasures the liability and then reclassifies the final value associated with the redeemable convertible preferred stock liability to the carrying value of the Series C redeemable convertible preferred stock.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carry forwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Valuation allowances are established when necessary to reduce deferred taxes to the amounts expected to be realized.

The Company recognizes benefits of uncertain tax positions if it is more likely than not that such positions will be sustained upon examination based solely on their technical merit, as the largest amount of benefit that is more likely than not to be realized upon the ultimate settlement. The Company's policy is to recognize interest and penalties related to the underpayment of income taxes as a component of income tax expense or benefit. To date, there have been no interest or penalties charged in relation to the unrecognized tax benefits.

Translation of Foreign Currencies

The Company's reporting currency is the U.S. dollar. The functional currency of the Company's subsidiary located in Australia is the Australian Dollar. Balance sheets prepared in the functional currencies are translated to the reporting currency at exchange rates in effect at the end of the accounting period, except for stockholders' equity accounts, which are translated at rates in effect when these balances were originally recorded. Revenue and expense accounts are translated using a weighted-average rate during the year. The resulting foreign currency translation adjustments are recorded as a separate component of accumulated other comprehensive loss in the accompanying consolidated balance sheets. Foreign exchange translation losses for the years ended December 31, 2017 and 2018 totaled $24,000 and $40,000, respectively.

Gains and losses resulting from exchange rate changes on transactions denominated in a currency other than the local currency are included in earnings as incurred.

Research and Development Expense

Research and development costs are expensed as incurred. Research and development costs consist primarily of direct and indirect development expenses incurred for the development of the Company's product candidates. Direct expenses include (i) agreements with third party contract organizations, investigative clinical trial sites and consultants that conduct research and development activities; (ii) fees paid to contract manufacturers and costs to produce clinical trial materials; (iii) costs associated with discovery, preclinical and clinical testing of the product candidate costs; and (iv) laboratory supplies and materials. Indirect expenses include compensation and personnel-related expenses and stock-based compensation for personnel contributing to research and development and facilities and other expenses including depreciation and amortization. Payments made to third parties are under agreements that are generally cancelable by the Company. Advance payments for research and development activities are deferred as prepaid expenses. The prepaid amounts are expensed as the related services are performed.

ANNEXON, INC.
Notes to Consolidated Financial Statements

The Company estimates preclinical studies and clinical trial expenses based on the services performed pursuant to contracts with research institutions and clinical research organizations that conduct and manage preclinical studies and clinical trials on the Company's behalf. In accruing service fees, the Company estimates the period over which services will be performed and the level of effort to be expended in each period. These estimates are based on the Company's communications with the third-party service providers and on information available at each balance sheet date. If the actual timing of the performance of services or the level of effort varies significantly from the estimate, the Company will adjust the accrual accordingly to reflect the best information available at the time of the financial statement issuance. The Company has not experienced any material differences between accrued costs and actual costs incurred since its inception.

Stock-Based Compensation

The Company accounts for stock-based compensation arrangements with employees and non-employee directors and consultants using a fair value method which requires the recognition of compensation expense for costs related to all stock-based payments, including stock options. The fair value method requires the Company to estimate the fair value of stock-based payment awards to employees on the date of grant using the Black-Scholes option pricing model. The fair value of awards to non-employees is estimated at each measurement date, which is the date on which the award vests. Total expenses for non-employee share based awards has been immaterial to date.

Stock-based compensation costs are based on the fair value of the underlying option calculated using the Black-Scholes option-pricing model and recognized as expense on a straight-line basis over the requisite service period, which is the vesting period.

Determining the appropriate fair value model and related assumptions requires judgment, including estimating the fair value of the underlying common stock, expected term, expected stock price volatility, risk-free interest rate and dividend yield. The Company accounts for forfeitures as they occur.

Accounting for Non-Recurring Grant Income

Non-recurring grant income is recognized when the research and development activities have been undertaken and the Company has completed its assessment of whether such activities meet the relevant qualifying criteria. Grants received from government and other agencies in advance of the specific research and development costs to which they relate are deferred and recognized in the consolidated statement of operations in the period they are earned and when the related research and development costs are incurred. Non-recurring grant income recognized in other income, net for the years ended December 31, 2017 and 2018 was $1.4 million and $35,000, respectively.

Net Loss Per Share Attributable to Common Stockholders

Basic net loss per share attributable to common stockholders is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding for the period, without consideration for potential dilutive shares of common stock. As the Company was in a loss position for all periods presented, basic net loss per share attributable to common stockholders is the same as diluted net loss per share attributable to common stockholders because the effects of potentially dilutive securities are antidilutive.

Unaudited Pro Forma Net Loss Per Share Attributable to Common Stockholders

In contemplation of the initial public offering ("IPO"), the Company has presented the unaudited pro forma basic and diluted net loss per share attributable to common stockholders, which has been computed to give effect

to the conversion of the redeemable convertible preferred stock into shares of common stock. The unaudited pro forma net loss per share attributable to common stockholders does not include the shares expected to be sold and related proceeds to be received from the IPO. The unaudited pro forma net loss per share attributable to common stockholders for the year ended December 31, 2018 was computed using the weighted-average number of shares of common stock outstanding, including the pro forma effect of the conversion of all outstanding shares of redeemable convertible preferred stock into shares of common stock, as if such conversion had occurred at the beginning of the period, or their issuance dates if later. The net loss attributable to common stockholders was adjusted to exclude the impact of the remeasurement of the redeemable convertible preferred stock liability and accretion on the redeemable convertible preferred stock as the underlying shares would have converted into common stock upon an IPO.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash. The Company's cash is deposited with high credit quality financial institutions. At times such deposits may be in excess of the Federal Depository Insurance Corporation insured limits.

Subsequent Events

The Company evaluated its consolidated financial statements for subsequent events through August 27, 2019, the date the consolidated financial statements were available to be issued.

Emerging Growth Company Status

The Company is expected to be an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012 (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. The Company has elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date that it (i) is no longer an emerging growth company or (ii) affirmatively and irrevocably opts out of the extended transition period provided in the JOBS Act. As a result, these financial statements may not be comparable to companies that comply with the new or revised accounting pronouncements as of public company effective dates.

Recently Issued Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-02, *Leases* (Topic 842), which supersedes the guidance in former ASC 840, *Leases*. This standard requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. Leases with a term of 12 months or less may be accounted for similar to existing guidance for operating leases today. This standard is effective for annual reporting periods, and interim periods within those years, for public entities beginning after December 15, 2018 and for private entities beginning after December 15, 2019. Originally, a modified retrospective transition approach was required for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. In July 2018, the FASB issued guidance to permit an alternative transition method for Topic 842, which allows transition to the new lease standard by

recognizing a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. Entities may elect to apply either approach. There are also a number of optional practical expedients that entities may elect to apply. The Company is currently assessing the impact of this standard on its consolidated financial statements. The Company expects to record a material right-of-use asset and lease liability in connection with adopting this standard as of January 1, 2020.

In June 2018, the FASB issued ASU No. 2018-07, *Improvements to Nonemployee Share-Based Payment Accounting* (ASU 2018-07). This standard simplifies the accounting for share-based payments to nonemployees by aligning it with the accounting for share-based payments to employees, with certain exceptions. Some of the areas of simplification apply only to nonpublic entities. This guidance is effective for annual reporting periods, and interim periods within those years, for public entities beginning after December 15, 2018. For all other entities, the amendments are effective for annual periods beginning after December 15, 2019, and interim periods within annual periods beginning after December 15, 2020. Early adoption is permitted for any entity in any interim or annual period for which financial statements have not been issued or made available for issuance, but not before an entity adopts ASC 606. The Company is currently assessing the impact of this standard on its consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13, *Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement* (ASU 2018-13), which eliminates certain disclosure requirements for fair value measurements for all entities, requires public entities to disclose certain new information and modifies some disclosure requirements. This standard is effective for all entities for fiscal years beginning after December 15, 2019, with early adoption permitted. The Company is currently assessing the impact of this standard on its consolidated financial statements.

3. Fair Value Measurements

The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible. The Company determines fair value based on assumptions that market participants would use in pricing an asset or liability in the principal or most advantageous market. When considering market participant assumptions in fair value measurements, the following fair value hierarchy distinguishes between observable and unobservable inputs, which are categorized in one of the following levels:

- *Level 1 Inputs:* Unadjusted quoted prices in active markets for identical assets or liabilities accessible to the reporting entity at the measurement date.
- *Level 2 Inputs:* Other than quoted prices included in Level 1 inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability.
- *Level 3 Inputs:* Unobservable inputs for the asset or liability used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at measurement date.

On a recurring basis, the Company measures certain financial assets and liabilities at fair value. The following tables summarize the fair value of the Company's financial assets and liabilities measured at fair value on a recurring basis by level within the fair value hierarchy (in thousands):

	December 31, 2017			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$2,409	$ —	$ —	$2,409
Total assets	$2,409	$ —	$ —	$2,409

ANNEXON, INC.
Notes to Consolidated Financial Statements

	December 31, 2018			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$43,680	$ —	$ —	$43,680
Total assets	$43,680	$ —	$ —	$43,680
Liabilities:				
Redeemable convertible preferred stock liability	$ —	$ —	$5,140	$ 5,140
Total liabilities	$ —	$ —	$5,140	$ 5,140

The Company has an operating account invested in money market funds with maturities of less than three months and is classified as cash and cash equivalents on the Company's balance sheet. The money market funds are valued using Level 1 inputs that are based on quoted prices in active markets for identical assets.

For the years ended December 31, 2017 and 2018, the Company recognized no material realized gains or losses on financial instruments.

The Company's Level 3 liabilities include the redeemable convertible preferred stock liability. The Company estimates the fair value of this liability using the Black-Scholes option pricing model with an expected term of 0.58 to 0.65 years, the estimated fair value of the Series C redeemable convertible preferred stock of $1.19 to $1.20, volatility of 77.7% and risk-free interest rates ranging from 2.47% to 2.56% during 2018. On the first closing of the Company's Series C redeemable convertible preferred stock financing in December 2018, the Company recorded the initial fair value of the redeemable convertible preferred stock liability of $5.4 million. The liability was remeasured as of December 31, 2018, and the Company recorded a gain of $260,000 in the consolidated statements of operations for the change in the fair value of the liability.

The changes in the carrying value of the liability were as follows (in thousands):

Fair value as of December 31, 2017	$ —
Fair value at issuance	5,400
Change in fair value	(260)
Fair value as of December 31, 2018	$5,140

There were no transfers between Levels 1, 2 or 3 for the periods presented.

4. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consisted of the following (in thousands):

	December 31,	
	2017	2018
Prepaid research and development costs	$1,071	$1,127
Prepaid expenses	274	179
Other receivables	582	225
Total prepaid expenses and other current assets	$1,927	$1,531

ANNEXON, INC.
Notes to Consolidated Financial Statements

5. Property and Equipment, Net

Property and equipment, net consisted of the following (in thousands):

	December 31, 2017	December 31, 2018
Leasehold improvements	$2,564	$2,564
Laboratory equipment	413	429
Furniture and fixtures	136	136
Computer equipment and software	25	27
Total property and equipment, gross	3,138	3,156
Less: accumulated depreciation	(322)	(811)
Total property and equipment, net	$2,816	$2,345

Total depreciation expense recognized for the years ended December 31, 2017 and 2018 was $271,000 and $488,000, respectively.

6. Accrued Liabilities

Accrued liabilities consisted of the following (in thousands):

	December 31, 2017	December 31, 2018
Accrued research and development expenses	$ 578	$ 766
Accrued compensation	421	766
Accrued professional services	14	65
Other accrued expenses	61	116
Total accrued liabilities	$1,074	$1,713

7. Commitments and Contingencies

Leases

In December 2016, the Company entered into a 7-year noncancelable facility lease agreement for its offices and laboratory occupying 12,316 square feet in South San Francisco, California. The lease commencement date was January 1, 2017. The lease agreement included a tenant improvement allowance of up to $2.4 million that was accounted for as a tenant improvement asset with a corresponding increase to the deferred rent liability. The tenant improvement asset is being depreciated over the lease term, its assessed useful life. The lease has a 5-year renewal option prior to expiration and includes rent adjustment clauses throughout the lease term. Rent expense is recognized on a straight-line basis over the non-cancelable term of the lease and, accordingly, the Company records the difference between cash rent payments and the recognition of rent expense as a deferred rent liability on the accompanying balance sheet.

Total rent expense was $467,000 and $353,000 for the years ended December 31, 2017 and 2018, respectively.

Future minimum lease payments under noncancelable operating leases as of December 31, 2018 were as follows (in thousands):

2019	$ 696
2020	720
2021	743
2022	769
2023 and thereafter	1,157
Total	$4,085

Sponsored Research Agreement

In December 2016, the Company entered into a Sponsored Research Agreement with a not-for-profit entity to perform research on multiple sclerosis. Under the terms of the Sponsored Research Agreement, the Company may receive up to $693,000 in funding. If within 15 years of the end of the Sponsored Research Agreement the Company files a marketing authorization application for a product treating multiple sclerosis, the Company will be obligated to pay milestone payments up to four times the amounts received under the Sponsored Research Agreement. In the year ended December 31, 2017, the Company had received $231,000, representing the total amount received to that date under the Sponsored Research Agreement, which was recorded as other income. No funding was received in 2018.

Guarantees and Indemnifications

In the normal course of business, the Company enters into agreements that contain a variety of representations and provide for general indemnification. The Company's exposure under these agreements is unknown because it involves claims that may be made against the Company in the future. To date, the Company has not paid any claims or been required to defend any action related to its indemnification obligations. As of December 31, 2018, the Company did not have any material indemnification claims that were probable or reasonably possible and consequently has not recorded related liabilities.

8. Redeemable Convertible Preferred Stock and Stockholder's Deficit

Redeemable Convertible Preferred Stock

As of December 31, 2017, redeemable convertible preferred stock consisted of the following:

	Shares Authorized	Shares Outstanding	Net Carrying Value (in thousands)	Liquidation Preference (in thousands)
Series A	1,015,434	1,015,434	$ 994	$ 1,000
Series A-1	16,398,995	16,398,995	17,098	17,219
Series B	38,778,091	26,974,965	30,879	31,021
Total	56,192,520	44,389,394	$ 48,971	$ 49,240

ANNEXON, INC.
Notes to Consolidated Financial Statements

As of December 31, 2018, redeemable convertible preferred stock consisted of the following:

	Shares Authorized	Shares Outstanding	Net Carrying Value (in thousands)	Liquidation Preference (in thousands)
Series A	1,015,434	1,015,434	$ 996	$ 1,000
Series A-1	16,398,995	16,398,995	17,142	17,219
Series B	38,778,091	38,778,090	44,484	44,595
Series C	62,962,952	33,333,329	39,460	45,000
Total	119,155,472	89,525,848	$ 102,082	$ 107,814

In December 2018, the Company issued 33,333,329 shares of Series C redeemable convertible preferred stock for $1.35 per share in the first closing of its Series C redeemable convertible preferred stock financing. Investors in the Series C redeemable convertible preferred stock financing also received freestanding rights to purchase an additional 22,222,217 shares of Series C redeemable convertible preferred stock on the same terms as the first closing upon completion of certain defined milestones or waiver of the milestones by the holders of at least 60% of the outstanding redeemable convertible preferred stock, voting as a single class on an as-converted basis, including certain Series C investors. Additionally, the investors had the right to purchase their second closing shares upon providing notice to the Company prior to July 31, 2019. If the milestones are met by July 31, 2019 then the investors are obligated to participate in the second closing on the same terms as the first closing. In August 2019, the term was extended to August 31, 2019. The investors' rights to purchase Series C redeemable convertible preferred stock represent a freestanding financial instrument accounted for as a liability measured at fair value at inception and remeasured at fair value each reporting date. Changes in fair value are recognized in the statement of operations. The proceeds from the initial closing of the Series C redeemable convertible preferred stock of $44.8 million were allocated to the redeemable convertible preferred stock liability at its fair value of $5.4 million and to the carrying value of the Series C redeemable convertible preferred stock.

In June 2016, the Company issued 26,974,965 shares of Series B redeemable convertible preferred stock for $1.15 per share to a group of investors in the first closing of its Series B redeemable convertible preferred stock financing. In February 2018, the Company issued 11,803,125 additional shares of Series B redeemable convertible preferred stock in a second closing on the same terms as the initial closing in June 2016.

Significant provisions of the redeemable convertible preferred stock are as follows:

Dividends—The holders of Series A-1, Series B and Series C redeemable convertible preferred stock are entitled to receive noncumulative dividends, in preference to any dividends payable to holders of Series A redeemable convertible preferred stock or common stock, at the annual dividend rate of $0.063 per share for Series A-1 redeemable convertible preferred stock, $0.069 per share for Series B redeemable convertible preferred stock and $0.081 per share for Series C redeemable convertible preferred stock, as adjusted for any stock splits, stock dividends, recapitalization, or the like, if declared by the Board of Directors.

The holders of Series A redeemable convertible preferred stock are entitled to receive noncumulative dividends, in preference to any dividends payable to holders of common stock, if declared by the Board of Directors.

The holders of redeemable convertible preferred stock are also entitled to participate in dividends on common stock, when and if declared by the Board of Directors, based on the outstanding redeemable convertible preferred stock (on an as-if converted to common stock basis) and common stock.

ANNEXON, INC.
Notes to Consolidated Financial Statements

Conversion—At the option of the holder, each share of redeemable convertible preferred stock is convertible, one-for-one, subject to adjustment for anti-dilution protection, into shares of common stock. Each share automatically converts into the number of shares of common stock into which the shares are convertible at the then applicable conversion ratio upon (i) the closing of the sale of the Company's common stock in a public offering provided the offering price per share is not less than $2.70 (as adjusted for recapitalization), and the aggregate net proceeds are greater than $50 million ("Qualified Public Offering") or (ii) upon receipt of the written consent of the holders of at least 60% of the outstanding redeemable convertible preferred stock, voting as a single class on an as-converted basis, including certain Series C investors, for the conversion of all then outstanding redeemable convertible preferred stock.

Liquidation—In the event of any liquidation, dissolution or winding up of the Company, including a merger or acquisition where the beneficial owners of the Company's common and redeemable convertible preferred stock own less than majority of the surviving entity, or a sale of all or substantially all assets, the holders of Series C, Series B and Series A-1 redeemable convertible preferred stock will be entitled to receive a per share amount equal to $1.35, $1.15 and $1.05 for Series C, Series B and Series A-1 redeemable convertible preferred stock, respectively (subject to adjustment for recapitalizations, stock dividends or the like), plus all declared but unpaid (if any). The holders of Series C redeemable convertible preferred stock are also entitled to an additional amount per share if the liquidation event occurs before a certain date.

After payment of the full liquidation preference of Series C, Series B and Series A-1 redeemable convertible preferred stock, the holders of Series A redeemable convertible preferred stock will be entitled to receive an amount equal to $0.9848 per share, as adjusted, plus all declared but unpaid dividends prior to and in preference to any distribution to the holders of common stock.

After payment of the full liquidation preference of Series C, Series B, Series A-1 and Series A redeemable convertible preferred stock, distributions by the Company shall be distributed with equal priority, subject to the proviso outlined below, among holders of the redeemable convertible preferred stock and common stock, with redeemable convertible preferred stock being treated on an as converted basis. Upon receipt by the Series C, Series B, Series A-1 and Series A redeemable convertible preferred stock holders of their per share aggregate distribution threshold amounts of $1.35, $2.30, $2.10 and $1.9696 for holders of Series C, Series B, Series A-1 and Series A redeemable convertible preferred stock, respectively, any remaining proceeds available for distribution will be distributed among holders of common stock in proportion to the number of common shares held by them.

Voting—The holders of redeemable convertible preferred stock are entitled to the number of votes equal to the number of shares of common stock into which each share of Series C, Series B, Series A-1 and Series A redeemable convertible preferred stock could be converted on the record date for the vote or consent of the stockholders, except as otherwise required by law, and have voting rights and powers equal to the voting rights and powers of the common stockholders.

The holders of Series C redeemable convertible preferred stock, voting as a separate class, are entitled to elect one member of the Board of Directors. The holders of Series B redeemable convertible preferred stock, voting as a separate class, are entitled to elect one member of the Board of Directors. The holders of Series A-1 redeemable convertible preferred stock, voting as a separate class, are entitled to elect three members of the Board of Directors. The holders of common stock, voting as a separate class, are entitled to elect one member of the Board of Directors. Any additional members of the Board of Directors shall be elected by the holders of common stock and redeemable convertible preferred stock voting together as a single class.

Redemption—All redeemable convertible preferred stock shall be redeemed at the election of the holders of at least 60% of the then outstanding shares of redeemable convertible preferred stock, voting as a single class on

an as-converted basis, including certain Series C investors, at any time after the fifth anniversary of the date of the filing of the Fifth Amended and Restated Certificates of Incorporation. The Company shall redeem the outstanding shares of redeemable convertible preferred stock by paying in cash, in three equal annual installments, an amount per share equal to the Series C original issue price, with respect to Series C redeemable convertible preferred stock, Series B original issue price, with respect to Series B redeemable convertible preferred stock, Series A-1 original issue price, with respect to the Series A-1 redeemable convertible preferred stock, and the Series A original issue price, with respect to the Series A redeemable convertible preferred stock, plus an amount equal to all declared and unpaid dividends thereon, whether or not earned. Funds available for such redemption shall be used to redeem all shares of Series C, Series B and Series A-l redeemable convertible preferred stock, on a pari passu basis, before any shares of Series A redeemable convertible preferred stock are redeemed.

Classification—The Company has classified the redeemable convertible preferred stock as mezzanine equity on the consolidated balance sheets as the stock is contingently redeemable with passage of time or upon deemed liquidation events, such as a change in control. Because the redeemable convertible preferred stock becomes redeemable at any time after the fifth anniversary of the issuance dates at the election of the holders of at least 60% of the then outstanding shares of redeemable convertible preferred stock, voting as a single class on an as-converted basis, including certain Series C investors, the carrying values of the redeemable convertible preferred stock are adjusted to redemption value over the period from the date of issuance to the earliest redemption date using the effective interest rate method.

Common Stock

The holders of the Company's common stock have one vote for each share of common stock. Common stockholders are entitled to dividends when, as, and if declared by the Board of Directors, subject to the prior rights of the redeemable convertible preferred stockholders. The holders have no preemptive or other subscription rights and there are no redemption or sinking fund provisions with respect to such shares. As of December 31, 2018, no dividends had been declared by the Board of Directors.

The Company reserved the following shares of common stock for issuance as follows:

	December 31,	
	2017	2018
Redeemable convertible preferred stock outstanding on an as-converted basis	44,389,394	89,525,848
Options issued and outstanding	7,228,413	6,216,272
Options available for future grant	2,771,020	15,480,692
Total common stock reserved	54,388,827	111,222,812

9. Equity Incentive Plan

In 2011, the Company adopted the 2011 Equity Incentive Plan (the "Plan"). The Plan provides for granting stock options, stock bonuses, and rights to acquire restricted stock to employees, directors and consultants. As of December 31, 2018, there were 22,705,663 shares authorized under the Plan. Both incentive and nonqualified stock options can be granted under terms of the Plan and conditions established by the Board of Directors. Incentive stock options can only be granted to employees. The exercise price for incentive stock options cannot be less than the fair market value of the related common stock on the grant date. Stock options granted under the Plan generally vest over four years and expire no later than 10 years from the date of grant. The exercise price for rights to acquire restricted stock cannot be less than the fair market value of the related common stock on the grant date. The terms and conditions governing restricted stock is at the sole discretion of the Company.

ANNEXON, INC.
Notes to Consolidated Financial Statements

Stock option activity under the Plan was as follows:

	Shares Available for Grant	Number of Shares	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Balances as of December 31, 2016	2,397,599	6,184,575	$ 0.18	8.21	$ 1,515
Additional shares authorized	1,646,175	—			
Stock options granted	(1,891,617)	1,891,617	0.32		
Stock options exercised	—	(228,916)	0.19		
Stock options cancelled	618,863	(618,863)	0.19		
Balances as of December 31, 2017	2,771,020	7,228,413	$ 0.22	8.24	$ 1,888
Additional shares authorized	12,365,704	—			
Stock options granted	(756,822)	756,822	0.48		
Stock options exercised	—	(668,173)	0.18		
Stock options cancelled	1,100,790	(1,100,790)	0.38		
Balances as of December 31, 2018	15,480,692	6,216,272	$ 0.23	7.23	$ 2,199
Exercisable as of December 31, 2018		4,125,391	$ 0.18	6.71	$ 1,635

The total intrinsic value of options exercised during the years ended December 31, 2017 and 2018 was $60,000 and $200,000, respectively. The intrinsic value is the difference between the estimated fair value of the Company's common stock at the time of exercise, as determined by the Board of Directors, and the exercise price of the stock option.

The weighted-average grant date fair value of options granted to employees during the years ended December 31, 2017 and 2018 was $0.33 per share.

Stock Options Granted to Employees

To determine the value of stock option awards for stock-based compensation purposes, the Company uses the Black-Scholes option-pricing model and the assumptions discussed below. Each of these inputs is subjective and generally requires significant judgment.

Fair Value of Common Stock—The grant date fair market value of the shares of common stock underlying stock options has historically been determined by the Company's Board of Directors. Because there has been no public market for the Company's common stock, the Board of Directors exercises reasonable judgment and considers a number of objective and subjective factors to determine the best estimate of the fair market value, which include contemporaneous valuations performed by an independent third-party, important developments in the Company's operations, sales of redeemable convertible preferred stock, the rights, preferences and privileges of the Company's redeemable convertible preferred stock relative to those of its common stock, lack of marketability of its common stock, actual operating results, financial performance, the progress of clinical development, the likelihood of achieving a liquidity event for the Company's security holders, the trends, development and conditions in the life sciences and biotechnology sectors, the economy in general, the stock price performance and volatility of comparable public companies.

Expected Term—The Company's expected term represents the period that the Company's stock-based awards are expected to be outstanding and is determined using the simplified method (based on the mid-point between the vesting date and the end of the contractual term).

ANNEXON, INC.
Notes to Consolidated Financial Statements

Expected Volatility—Because the Company is privately held and does not have any trading history for its common stock, the expected volatility was estimated based on the average volatility for comparable publicly traded life science companies over a period equal to the expected term of the stock option grants. The comparable companies were chosen based on the similar size, stage in the life cycle, or area of specialty. The Company will continue to apply this process until a sufficient amount of historical information regarding the volatility of its own stock price becomes available.

Risk-Free Interest Rate—The risk-free interest rate is based on the U.S. Treasury zero coupon issues in effect at the time of grant for periods corresponding with the expected term of the option.

Dividend Yield—The Company has never paid dividends on its common stock and has no plans to pay dividends on its common stock. Therefore, the Company used an expected dividend yield of zero.

The fair value of each award issued during the years ended December 31, 2017 and 2018 was estimated on the date of grant using the Black-Scholes option pricing model with the following assumptions:

	Year Ended December 31,	
	2017	2018
Expected term (in years)	5.89-6.08	6.08
Expected volatility	77%-79%	76%-77%
Risk-free interest rate	2.04%-2.20%	2.49%-2.87%
Dividend yield	—	—

As of December 31, 2018, the total unrecognized stock-based compensation cost related to outstanding unvested employee stock options that are expected to vest was $579,000, which the Company expects to recognize over an estimated weighted-average period of 1.3 years.

Stock-Based Compensation Expense

The total stock-based compensation recognized for options granted was as follows (in thousands):

	December 31,	
	2017	2018
Research and development	$165	$118
General and administrative	236	290
Total stock-based compensation expense	$401	$408

10. Income Taxes

The provision for income taxes was immaterial for the years ended December 31, 2017 and 2018. The Company has not reflected any benefit of net operating loss carryforwards in the financial statements.

ANNEXON, INC.
Notes to Consolidated Financial Statements

Reconciliation of income tax computed at federal statutory rates to the reported provision for income taxes was as follows (in thousands):

	Year Ended December 31,	
	2017	2018
Tax provision at U.S. statutory rate	$(6,360)	$(3,844)
State income taxes, net of federal benefit	1	1
Stock-based compensation	116	67
R&D tax credits	(718)	(541)
Change in valuation allowance	623	4,309
Change in federal statutory rate	5,785	—
Other	554	9
Provision for income tax	$ 1	$ 1

Deferred Tax Assets and Liabilities

The tax effects of temporary differences that give rise to significant portions of the Company's deferred tax assets and liabilities are as follows (in thousands):

	December 31,	
	2017	2018
Deferred Tax Assets:		
Net operating loss carryforwards	$ 10,743	$ 16,176
Research and development credits	2,080	3,074
Other intangibles	8	7
Accruals and reserves	149	219
Stock-based compensation	96	73
Other	84	7
Tenant improvement allowances	457	389
Total gross deferred tax assets	13,617	19,945
Less: valuation allowance	(13,149)	(19,545)
Total deferred tax assets, net	$ 468	$ 400
Deferred Tax Liabilities:		
Fixed assets	(468)	(400)
Total gross deferred tax liabilities	(468)	(400)
Net deferred tax assets	$ —	$ —

As of December 31, 2018, the Company had $60.8 million of federal and $36.6 million of state net operating loss carryforwards available to offset future taxable income. If not utilized, these carryforward losses will expire in various amounts for federal and state tax purposes beginning in 2031 and 2031, respectively. Under the Tax Cuts and Jobs Act of 2017 (the "Tax Act"), net operating losses generated after December 31, 2017 will be carried forward indefinitely with the yearly net operating loss utilization limited to 80 percent of taxable income.

ANNEXON, INC.
Notes to Consolidated Financial Statements

As of December 31, 2018, the Company had $2.1 million of federal and $1.8 million of state credit carryforwards available to offset future taxable income. If not utilized, these credit carryforwards will expire in various amounts for federal purposes beginning in 2031. The state credits do not expire.

In assessing the realization of deferred tax assets, management considers whether it is more likely than not that some or all of the deferred tax assets will not be realized. Management believes that, based on available evidence, both positive and negative, it is more likely than not that the deferred tax assets will not be utilized; therefore, a full valuation allowance has been recorded. The Company's valuation allowance increased by $2.8 million and $6.4 million for the years ended December 31, 2017 and 2018, respectively. The change in the 2017 valuation allowance was primarily due to the addition of the current year loss carryforwards and change in federal tax rate; the change in the 2018 valuation allowance was primarily due to the addition of the current year loss carryforwards.

Utilization of the net operating loss carryforwards and credits may be subject to an annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986, as amended and similar state provisions. Any annual limitation may result in the expiration of net operating losses and credits before utilization.

Uncertain Tax Benefits

The Company has the following activity relating to the gross amount of unrecognized tax benefits (in thousands):

	December 31,	
	2017	2018
Beginning balance	$285	$503
Additions based on tax positions related to prior year	—	31
Additions based on tax positions related to current year	218	249
Ending balance	$503	$783

None of these uncertain tax positions will impact the Company's effective tax rate if assessed. The Company's policy is to classify interest and penalties associated with unrecognized tax benefits as income tax expense. The Company had no interest or penalty accruals associated with uncertain tax benefits in its consolidated balance sheet and consolidated statement of operations for fiscal year 2018. The tax years 2011 through 2018 remain effectively open for examination by the Internal Revenue Service and most state tax authorities.

Although it is reasonably possible that certain unrecognized tax benefits may increase or decrease within the next twelve months due to tax examination changes, settlement activities, expirations of statute of limitations, or the impact on recognition and measurement considerations related to the results of published tax cases or other similar activities, the Company does not anticipated any significant changes to unrecognized tax benefits over the next 12 months. During the years ended December 31, 2017 and 2018, no interest or penalties were required to be recognized relating to unrecognized tax benefits.

Tax Law Changes

The Tax Act was enacted on December 22, 2017. Among other provisions, the Tax Act reduces the top U.S. federal corporate tax rate from 35% to 21%, requires companies to pay a one-time transition tax on earnings of

certain foreign subsidiaries that were previously tax deferred, changes the rules related to uses and limitations of net operating loss carryforwards created in tax years beginning after December 31, 2017, and creates new taxes on certain foreign sourced earnings. The Company has reflected the changes resulting from the Tax Act in the financial statements for the period of enactment, the year ended December 31, 2017. The change in corporate tax rate resulted in a $5.8 million decrease in the Company's gross deferred tax assets, with an offsetting decrease in valuation allowance of the same amount as of December 31, 2017. No change in the Company's gross tax assets is required from the corporate tax rate change as of December 31, 2018. The Company has established a policy to account for tax liability arising from Global Intangible Low-Taxed Income ("GILTI"), if any, as a period cost. In 2018, there was no GILTI inclusion from the foreign subsidiary.

11. Net Loss and Unaudited Pro Forma Net Loss Per Share Attributable to Common Stockholders

The following outstanding potentially dilutive shares have been excluded from the calculation of diluted net loss per share due to their anti-dilutive effect:

	Year Ended December 31,	
	2017	2018
Redeemable convertible preferred stock on an as-converted basis	44,389,394	89,525,848
Stock options to purchase common stock	7,228,413	6,216,272
Total	51,617,807	95,742,120

Unaudited Pro forma Net Loss Per Share Attributable to Common Stockholders

The following table sets forth the computation of unaudited pro forma basic and diluted net loss per share during the year ended December 31, 2018 (in thousands, except share and per share amounts):

	Year Ended December 31, 2018 (unaudited)
Numerator:	
Net loss attributable to common stockholders	$ (18,480)
Gain on remeasurement of the redeemable convertible preferred stock liability	(260)
Accretion to redemption value on redeemable convertible preferred stock	176
Net loss used in computing pro forma net loss per share attributable to common stockholders, basic and diluted	$ (18,564)
Denominator:	
Weighted-average shares of common stock used in computing net loss per share attributable to common stockholders	3,548,177
Pro forma adjustment to reflect conversion of redeemable convertible preferred stock	
Weighted-average shares of common stock used in computing pro forma net loss per share attributable to common stockholders, basic and diluted	
Pro forma net loss per share attributable to common stockholders, basic and diluted	

ANNEXON, INC.
Condensed Consolidated Balance Sheets
(unaudited)
(in thousands, except share and per share amounts)

	December 31, 2018	June 30, 2019	Pro Forma June 30, 2019
Assets			
Current assets:			
Cash and cash equivalents	$ 44,175	$ 31,451	
Prepaid expenses and other current assets	1,531	2,027	
Total current assets	45,706	33,478	
Property and equipment, net	2,345	2,143	
Other long-term assets	98	98	
Total assets	$ 48,149	$ 35,719	
Liabilities, Redeemable Convertible Preferred Stock and Stockholders' Deficit			
Current liabilities:			
Accounts payable	$ 1,271	$ 2,180	
Accrued liabilities	1,713	1,367	
Deferred rent, current	342	353	
Total current liabilities	3,326	3,900	
Deferred rent	1,803	1,626	
Redeemable convertible preferred stock liability	5,140	9,470	$
Total liabilities	10,269	14,996	
Commitments and contingencies (Note 7)			
Redeemable convertible preferred stock, $0.001 par value, 119,155,472 shares authorized as of December 31, 2018 and June 30, 2019; 89,525,848 shares issued and outstanding as of December 31, 2018 and June 30, 2019; liquidation preference of $107,814 as of December 31, 2018 and June 30, 2019, no shares issued and outstanding as of June 30, 2019, pro forma	102,082	102,616	$
Stockholders' Deficit:			
Common stock, $0.001 par value; 150,000,000 shares authorized as of December 31, 2018 and June 30, 2019; 3,808,699 and 3,821,386 shares issued and outstanding as of December 31, 2018 and June 30, 2019; 93,347,234 shares issued and outstanding as of June 30, 2019, pro forma	4	4	
Additional paid-in capital	1,257	1,629	
Accumulated other comprehensive loss	(66)	(76)	
Accumulated deficit	(65,397)	(83,450)	
Total stockholders' deficit	(64,202)	(81,893)	$
Total liabilities, redeemable convertible preferred stock and stockholders' deficit	$ 48,149	$ 35,719	

See accompanying notes to these unaudited condensed consolidated financial statements.

ANNEXON, INC.
Condensed Consolidated Statements of Operations
(unaudited)
(in thousands, except share and per share amounts)

	Six Months Ended June 30,	
	2018	2019
Operating expenses:		
Research and development	$ 7,774	$ 10,640
General and administrative	1,760	3,679
Total operating expenses	9,534	14,319
Loss from operations	(9,534)	(14,319)
Loss on remeasurement of convertible redeemable preferred stock liability	—	(4,330)
Other income, net	60	597
Net loss before taxes	(9,474)	(18,052)
Provision for income taxes	1	1
Net loss	(9,475)	(18,053)
Accretion on redeemable convertible preferred stock	50	534
Net loss attributable to common stockholders	$ (9,525)	$ (18,587)
Net loss per share attributable to common stockholders, basic and diluted	$ (2.90)	$ (4.86)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted	3,283,337	3,821,386
Pro forma net loss per share attributable to common stockholders, basic and diluted		$
Weighted-average shares used in computing pro forma net loss per share attributable to common stockholders, basic and diluted		

See accompanying notes to these unaudited condensed consolidated financial statements.

ANNEXON, INC.
Condensed Consolidated Statements of Comprehensive Loss
(unaudited)
(in thousands)

	Six Months Ended June 30,	
	2018	2019
Net loss	$(9,475)	$(18,053)
Other comprehensive loss:		
Foreign currency translation adjustment	(16)	(10)
Comprehensive loss	$(9,491)	$(18,063)

See accompanying notes to these unaudited condensed consolidated financial statements.

ANNEXON, INC.
Condensed Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Deficit
(unaudited)
(in thousands, except share amounts)

	Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Cost	Shares	Cost				
Balances as of December 31, 2017	44,389,394	$48,971	3,140,526	$ 3	$ 905	$ (26)	$ (47,093)	$ (46,211)
Issuance of Series B redeemable convertible preferred stock, net of issuance costs of $22	11,803,125	13,552	—	—	—	—	—	—
Accretion on redeemable convertible preferred stock	—	50	—	—	(50)	—	—	(50)
Stock option exercises	—	—	668,173	1	120	—		121
Stock-based compensation	—	—	—	—	203	—	—	203
Foreign currency translation adjustment	—	—	—	—	—	(16)	—	(16)
Net loss	—	—	—	—	—	—	(9,475)	(9,475)
Balances as of June 30, 2018	56,192,519	$62,573	3,808,699	$ 4	$ 1,178	$ (42)	$ (56,568)	$ (55,428)

	Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Cost	Shares	Cost				
Balances as of December 31, 2018	89,525,848	$102,082	3,808,699	$ 4	$ 1,257	$ (66)	$ (65,397)	$ (64,202)
Accretion on redeemable convertible preferred stock	—	534	—	—	(534)	—	—	(534)
Stock option exercises	—	—	12,687	—	3	—		3
Stock-based compensation	—	—	—	—	903	—	—	903
Foreign currency translation adjustment	—	—	—	—	—	(10)	—	(10)
Net loss	—	—	—	—	—	—	(18,053)	(18,053)
Balances as of June 30, 2019	89,525,848	$102,616	3,821,386	$ 4	$ 1,629	$ (76)	$ (83,450)	$ (81,893)

See accompanying notes to these unaudited condensed consolidated financial statements.

ANNEXON, INC.
Condensed Consolidated Statements of Cash Flows
(unaudited)
(in thousands)

	Six Months Ended June 30,	
	2018	2019
Operating activities:		
Net loss	$ (9,475)	$(18,053)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	248	236
Stock-based compensation	203	903
Loss on remeasurement of redeemable convertible preferred stock liability	—	4,330
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	672	(496)
Other long-term assets	11	—
Accounts payable	(264)	893
Accrued liabilities	(293)	(346)
Deferred rent	(141)	(166)
Net cash used in operating activities	(9,039)	(12,699)
Investing activities:		
Purchases of property and equipment	(17)	(18)
Net cash used in investing activities	(17)	(18)
Financing activities:		
Proceeds from the exercise common stock options	121	3
Proceeds from issuance of redeemable convertible preferred stock, net of issuance costs	13,552	—
Net cash provided by financing activities	13,673	3
Net increase (decrease) in cash and cash equivalents	4,617	(12,714)
Effect of exchange rate changes on cash and cash equivalents	(16)	(10)
Cash and cash equivalents at beginning of year	2,966	44,175
Cash and cash equivalents at end of year	$ 7,567	$ 31,451
Supplemental disclosure of non-cash investing and financing activities:		
Accretion on redeemable convertible preferred stock	$ 50	$ 534

See accompanying notes to these unaudited condensed consolidated financial statements.

ANNEXON, INC.
Notes to Condensed Consolidated Financial Statements
(unaudited)

1. Organization

Annexon, Inc. (the "Company") is a clinical-stage biopharmaceutical company developing a pipeline of novel therapies for patients with classical complement-mediated disorders of the body, eye and brain. The Company is located in South San Francisco, California and was incorporated in Delaware in March 2011.

The Company's wholly-owned subsidiary, Annexon Australia Pty Ltd (the "Subsidiary"), is a proprietary limited company incorporated in 2016 and domiciled in Australia. The Subsidiary is also engaged in research and development activities in support of the Company.

Liquidity

Since inception, the Company has been involved primarily in performing research and development activities, hiring personnel, and raising capital to support and expand these activities. The Company has experienced losses and negative cash flows from operations since its inception and, as of June 30, 3019, had an accumulated deficit of $83.5 million and cash and cash equivalents of $31.5 million.

In December 2018, the Company completed a Series C redeemable convertible preferred stock financing raising $75.0 million with the first closing of $45.0 million occurring on December 7, 2018 and the second closing to occur subject to the Company achieving defined milestones (Note 7). During the third quarter of 2019, the Company achieved the defined milestones, triggering the obligation to fund the second closing and in August 2019, the Company issued 22,222,217 shares of Series C redeemable convertible preferred stock for net proceeds of $29.9 million. The Company intends to raise additional capital through public or private equity offerings or debt financings, credit or loan facilities, collaborations or a combination of one or more of these funding sources. If financing is not available at adequate levels, the Company may need to reevaluate its operating plans. Based on projected activities, management projects that cash and cash equivalents on hand and the proceeds from the Series C second closing is sufficient to support operations for at least the next 12 months following issuance of these condensed consolidated financial statements. Management expects to continue to incur losses and negative cash flows from operations for at least the next several years.

2. Basis of Presentation and Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported expenses during the reporting period. On an ongoing basis, management evaluates its estimates, including but not limited to the fair value of common stock, redeemable convertible preferred stock, redeemable convertible preferred stock liability, and stock options, income taxes, and certain accruals. The Company evaluates its estimates and assumptions on an ongoing basis using historical experience and other factors and adjusts those estimates and assumptions when facts and circumstances dictate. Actual results could differ from those estimates.

Principles of Consolidation

The consolidated financial statements include the operations of Annexon, Inc. and its wholly-owned subsidiary and include the results of operations and cash flows of these entities. All intercompany balances and transactions have been eliminated in consolidation.

ANNEXON, INC.
Notes to Condensed Consolidated Financial Statements
(unaudited)

Unaudited Interim Condensed Consolidated Financial Statements

The interim condensed consolidated balance sheet as of June 30, 2019, and the interim condensed consolidated statements of operations, comprehensive loss, changes in redeemable convertible preferred stock and stockholders' deficit and cash flows for the six months ended June 30, 2018 and 2019 are unaudited. These unaudited interim condensed consolidated financial statements have been prepared on a basis consistent with the Company's audited consolidated financial statements and include, in the opinion of management, all adjustments (consisting only of normal recurring adjustments) that management considers necessary for a fair presentation of the Company's consolidated financial information. The financial data and the other financial information disclosed in these notes to the condensed consolidated financial statements related to the six-month periods are also unaudited. The condensed consolidated results of operations for the six months ended June 30, 2019 are not necessarily indicative of the results to be expected for the year ending December 31, 2019 or for any other future annual or interim period. The condensed consolidated balance sheet as of December 31, 2018 included herein was derived from the audited consolidated financial statements as of that date. These interim condensed consolidated financial statements should be read in conjunction with the Company's audited consolidated financial statements included elsewhere in this prospectus.

Unaudited Pro Forma Consolidated Balance Sheet Information

In contemplation of the Company's planned initial public offering ("IPO"), the unaudited pro forma stockholders' equity in the condensed consolidated balance sheet reflects shares of the Company's common stock outstanding as of June 30, 2019 and assumes (i) the conversion of outstanding shares of redeemable convertible preferred stock into common stock immediately prior to the completion of the IPO; and (ii) the extinguishment of the redeemable convertible preferred stock liability as the underlying shares would have converted into common stock upon the closing of the IPO. The shares of common stock issuable and the proceeds expected to be received in the IPO are excluded from such pro forma financial information.

Redeemable Convertible Preferred Stock Liability

The obligation to issue additional shares of the Company's Series C redeemable convertible preferred stock at a future date was determined to be a freestanding financial instrument that should be accounted for as a liability. At initial recognition, the Company recorded the redeemable convertible preferred stock liability on the balance sheet at its estimated fair value. The liability is subject to remeasurement at each balance sheet date, with changes in fair value recognized as a gain (loss) on remeasurement of convertible redeemable preferred stock liability on the statement of operations. Upon settlement of the redeemable convertible preferred stock liability, the Company remeasures the liability and then reclassifies the final value associated with the redeemable convertible preferred stock liability to the carrying value of the Series C redeemable convertible preferred stock.

Translation of Foreign Currencies

The Company's reporting currency is the U.S. dollar. The functional currency of the Company's subsidiary located in Australia is the Australian Dollar. Balance sheets prepared in the functional currencies are translated to the reporting currency at exchange rates in effect at the end of the accounting period, except for stockholders' equity accounts, which are translated at rates in effect when these balances were originally recorded. Revenue and expense accounts are translated using a weighted-average rate during the year. The resulting foreign currency translation adjustments are recorded as a separate component of accumulated other comprehensive loss in the accompanying consolidated balance sheets. Foreign exchange translation losses for the six months ended June 30, 2018 and 2019 totaled $16,000 and $10,000, respectively.

ANNEXON, INC.
Notes to Condensed Consolidated Financial Statements
(unaudited)

Gains and losses resulting from exchange rate changes on transactions denominated in a currency other than the local currency are included in earnings as incurred.

Research and Development Expense

Research and development costs consist primarily of direct and indirect development expenses incurred for the development of the Company's product candidates.

Research and development expenses consist primarily of direct and indirect costs incurred for the development of the Company's product candidates.

Direct expenses include (i) preclinical and clinical outside service costs associated with discovery, preclinical and clinical testing of the Company's product candidates; (ii) professional services agreements with third-party contract organizations, investigative clinical trial sites and consultants that conduct research and development activities on the Company's behalf; (iii) contract manufacturing costs to produce clinical trial materials; and (iv) laboratory supplies and materials. Indirect expenses include (A) compensation and personnel-related expenses (including stock-based compensation), (B) allocated expenses for facilities and depreciation; and (C) other indirect costs.

Research and development costs are expensed as incurred. Payments made to third parties are under agreements that are generally cancelable by the Company. Advance payments for research and development activities are deferred as prepaid expenses. The prepaid amounts are expensed as the related services are performed.

The Company estimates preclinical studies and clinical trial expenses based on the services performed pursuant to contracts with research institutions and clinical research organizations that conduct and manage preclinical studies and clinical trials on the Company's behalf. In accruing service fees, the Company estimates the period over which services will be performed and the level of effort to be expended in each period. These estimates are based on the Company's communications with the third-party service providers and on information available at each balance sheet date. If the actual timing of the performance of services or the level of effort varies significantly from the estimate, the Company will adjust the accrual accordingly to reflect the best information available at the time of the financial statement issuance. The Company has not experienced any material differences between accrued costs and actual costs incurred since its inception.

Stock-Based Compensation

The Company accounts for stock-based compensation arrangements with employees and non-employee directors and consultants using a fair value method which requires the recognition of compensation expense for costs related to all stock-based payments, including stock options. The fair value method requires the Company to estimate the fair value of stock-based payment awards to employees on the date of grant using the Black-Scholes option pricing model. The fair value of awards to non-employees is estimated at each measurement date, which is the date on which the award vests. Total expenses for non-employee share based awards has been immaterial to date.

The Company grants certain employees performance-based stock options. For awards that include performance conditions, no compensation cost is recognized until the performance goals are probable of being met, at which time the cumulative compensation expense from the service inception date would be recognized.

ANNEXON, INC.
Notes to Condensed Consolidated Financial Statements
(unaudited)

Stock-based compensation costs are based on the fair value of the underlying option calculated using the Black-Scholes option-pricing model and recognized as expense on a straight-line basis over the requisite service period, which is the vesting period.

Determining the appropriate fair value model and related assumptions requires judgment, including estimating the fair value of the underlying common stock, expected term, expected stock price volatility, risk-free interest rate and dividend yield. The Company accounts for forfeitures as they occur.

Net Loss Per Share Attributable to Common Stockholders

Basic net loss per share attributable to common stockholders is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding for the period, without consideration for potential dilutive shares of common stock. As the Company was in a loss position for all periods presented, basic net loss per share attributable to common stockholders is the same as diluted net loss per share attributable to common stockholders because the effects of potentially dilutive securities were antidilutive.

Unaudited Pro Forma Net Loss Per Share Attributable to Common Stockholders

In contemplation of the IPO, the Company has computed the unaudited pro forma basic and diluted net loss per share attributable to common stockholders, to give effect to the conversion of the redeemable convertible preferred stock into shares of common stock. The unaudited pro forma net loss per share attributable to common stockholders does not include the shares expected to be sold and related proceeds to be received from the IPO. The unaudited pro forma net loss per share attributable to common stockholders for the six months ended June 30, 2019 was computed using the weighted-average number of shares of common stock outstanding, including the pro forma effect of the conversion of all outstanding shares of redeemable convertible preferred stock into shares of common stock, as if such conversion had occurred at the beginning of the period, or their issuance dates if later. The net loss attributable to common stockholders was adjusted to exclude the impact of the remeasurement of the redeemable convertible preferred stock liability and accretion on the redeemable convertible preferred stock as the underlying shares would have converted into common stock upon an IPO.

Subsequent Events

The Company evaluated its condensed consolidated financial statements for subsequent events through September 17, 2019, the date the condensed consolidated financial statements were available to be issued.

Emerging Growth Company Status

The Company is expected to be emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012 (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. The Company has elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date that it (i) is no longer an emerging growth company or (ii) affirmatively and irrevocably opts out of the extended transition period provided in the JOBS Act. As a result, these consolidated financial statements may not be comparable to companies that comply with the new or revised accounting pronouncements as of public company effective dates.

ANNEXON, INC.
Notes to Condensed Consolidated Financial Statements
(unaudited)

Recently Issued Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-02, *Leases* (Topic 842), which supersedes the guidance in former ASC 840, *Leases*. This standard requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. Leases with a term of 12 months or less may be accounted for similar to existing guidance for operating leases today. This standard is effective for annual reporting periods, and interim periods within those years, for public entities beginning after December 15, 2018 and for private entities beginning after December 15, 2019. Originally, a modified retrospective transition approach was required for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. In July 2018, the FASB issued guidance to permit an alternative transition method for Topic 842, which allows transition to the new lease standard by recognizing a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. Entities may elect to apply either approach. There are also a number of optional practical expedients that entities may elect to apply. The Company is currently assessing the impact of this standard on its consolidated financial statements. The Company expects to record a material right-of-use asset and lease liability in connection with adopting this standard as of January 1, 2020.

In June 2018, the FASB issued ASU No. 2018-07, *Improvements to Nonemployee Share-Based Payment Accounting* (ASU 2018-07). This standard simplifies the accounting for share-based payments to nonemployees by aligning it with the accounting for share-based payments to employees, with certain exceptions. Some of the areas of simplification apply only to nonpublic entities. This guidance is effective for annual reporting periods, and interim periods within those years, for public entities beginning after December 15, 2018. For all other entities, the amendments are effective for annual periods beginning after December 15, 2019, and interim periods within annual periods beginning after December 15, 2020. Early adoption is permitted for any entity in any interim or annual period for which financial statements have not been issued or made available for issuance, but not before an entity adopts ASC 606. The Company is currently assessing the impact of this standard on its consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13, *Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement* (ASU 2018-13), which eliminates certain disclosure requirements for fair value measurements for all entities, requires public entities to disclose certain new information and modifies some disclosure requirements. This standard is effective for all entities for fiscal years beginning after December 15, 2019, with early adoption permitted. The Company is currently assessing the impact of this standard on its consolidated financial statements.

3. Fair Value Measurements

The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible. The Company determines fair value based on assumptions that market participants would use in pricing an asset or liability in the principal or most advantageous market. When considering market participant assumptions in fair value measurements, the following fair value hierarchy distinguishes between observable and unobservable inputs, which are categorized in one of the following levels:

Level 1 Inputs: Unadjusted quoted prices in active markets for identical assets or liabilities accessible to the reporting entity at the measurement date.

ANNEXON, INC.
Notes to Condensed Consolidated Financial Statements
(unaudited)

Level 2 Inputs: Other than quoted prices included in Level 1 inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability.

Level 3 Inputs: Unobservable inputs for the asset or liability used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at measurement date.

On a recurring basis, the Company measures certain financial assets and liabilities at fair value. The following tables summarize the fair value of the Company's financial assets and liabilities measured at fair value on a recurring basis by level within the fair value hierarchy (in thousands):

	December 31, 2018			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$43,680	$ —	$ —	$43,680
Total assets	$43,680	$ —	$ —	$43,680
Liabilities:				
Redeemable convertible preferred stock liability	$ —	$ —	$ 5,140	$ 5,140
Total liabilities	$ —	$ —	$ 5,140	$ 5,140

	June 30, 2019			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$30,951	$ —	$ —	$30,951
Total assets	$30,951	$ —	$ —	$30,951
Liabilities:				
Redeemable convertible preferred stock liability	$ —	$ —	$ 9,470	$ 9,470
Total liabilities	$ —	$ —	$ 9,470	$ 9,470

The Company has an operating account invested in money market funds with maturities of less than three months and is classified as cash and cash equivalents on the Company's balance sheet. The money market funds are valued using Level 1 inputs that are based on quoted prices in active markets for identical assets.

For the six months ended June 30, 2018 and 2019, the Company recognized no material realized gains or losses on financial instruments.

The Company's Level 3 liabilities include the redeemable convertible preferred stock liability. The Company initially estimated the fair value of the redeemable convertible preferred stock liability using the Black-Scholes option pricing model with an expected term of 0.65 years, the fair value of the Series C redeemable convertible preferred stock of $1.19, expected volatility of 77.7% and risk-free interest rate of 2.47% as of December 7, 2018. The liability was remeasured at December 31, 2018 using the Black-Scholes option pricing model with an expected term of 0.58 years, the fair value of the Series C redeemable convertible preferred stock of $1.20, expected volatility of 77.7% and risk-free interest rate 2.56%. In light of the Company's progress towards an IPO, the liability was remeasured at June 30, 2019 using a probability-weighted expected return method ("PWERM") whereby the Company's total equity value was estimated under various exit scenarios and

ANNEXON, INC.
Notes to Condensed Consolidated Financial Statements
(unaudited)

allocated to the Company's different classes of equity. The PWERM included two scenarios, IPO or staying private, that considered an estimate of the timing of each scenario and were weighted based on the Company's estimate of the probability of each event occurring. The equity value under the IPO scenario was based on recent IPO values of comparable companies and weighted 40%. The equity value under the staying private scenario was based on the recent Series C redeemable convertible preferred stock financing and was weighted 60%. The liability was remeasured to its fair value of $9.5 million as of June 30, 2019. The Company recorded a loss of $4.3 million in the condensed consolidated statements of operations for the six months ended June 30, 2019 for the change in the fair value of the liability.

The changes in the carrying value of the liability were as follows (in thousands):

Fair value as of December 31, 2018	$5,140
Change in fair value	4,330
Fair value as of June 30, 2019	$9,470

There were no transfers between Level 1, 2 or 3 for the periods presented.

4. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consisted of the following (in thousands):

	December 31, 2018	June 30, 2019
Prepaid research and development costs	$ 1,127	$ 1,466
Prepaid expenses	179	376
Other receivables	225	185
Total prepaid expenses and other current assets	$ 1,531	$ 2,027

5. Accrued Liabilities

Accrued liabilities consisted of the following (in thousands):

	December 31, 2018	June 30, 2019
Accrued compensation	$ 766	$ 509
Accrued research and development expenses	766	426
Accrued professional services	65	363
Other accrued expenses	116	69
Total accrued liabilities	$ 1,713	$ 1,367

6. Commitments and Contingencies

Leases

The Company leases its offices and laboratory in South San Francisco, California under a 7-year noncancelable lease agreement that ends in June 2024 with a 5-year renewal option. Rent expense is recognized on a straight-line basis over the non-cancelable term of the lease and, accordingly, the Company records the difference between cash rent payments and the recognition of rent expense as a deferred rent liability on the accompanying balance sheet.

ANNEXON, INC.
Notes to Condensed Consolidated Financial Statements
(unaudited)

Total rent expense was $189,000 and $176,000 for the six months ended June 30, 2018 and 2019, respectively.

License and Other Agreements

In November 2011, the Company entered into an exclusive licensing agreement (the "Stanford Agreement") with the Leland Stanford Junior University ("Stanford") whereby the Company was granted an exclusive, worldwide, royalty-bearing, sublicensable license, under certain patent rights (the "Licensed Patents"), to make, use, offer for sale, sell, import and otherwise commercialize products covered by the Licensed Patents for human or animal diseases, disorders or conditions. Under the Stanford Agreement, the Company made an upfront payment and is obligated to pay Stanford annual license maintenance fees, potential future milestone payments totaling up to $600,000, and royalty payments at a rate equal to a low single-digit percentage of worldwide net sales of licensed products.

In December 2016, the Company entered into a Sponsored Research Agreement with a not-for-profit entity to perform research on multiple sclerosis. Under the terms of the Sponsored Research Agreement, the Company may receive up to $693,000 in funding. If within 15 years of the end of the Sponsored Research Agreement the Company files a marketing authorization application for a product treating multiple sclerosis, the Company will be obligated to pay milestone payments up to four times the amounts received under the Sponsored Research Agreement. No funding was received during the six months ended June 30, 2018. For the six months ended June 30, 2019, the Company received $190,000, representing the final amount received under the Sponsored Research Agreement, which was recorded as other income.

Guarantees and Indemnifications

In the normal course of business, the Company enters into agreements that contain a variety of representations and provide for general indemnification. The Company's exposure under these agreements is unknown because it involves claims that may be made against the Company in the future. To date, the Company has not paid any claims or been required to defend any action related to its indemnification obligations. As of June 30, 2019, the Company did not have any material indemnification claims that were probable or reasonably possible and consequently has not recorded related liabilities.

7. Redeemable Convertible Preferred Stock and Stockholder's Deficit

Redeemable Convertible Preferred Stock

As of December 31, 2018, redeemable convertible preferred stock consisted of the following:

	Shares Authorized	Shares Outstanding	Net Carrying Value (in thousands)	Liquidation Preference (in thousands)
Series A	1,015,434	1,015,434	$ 996	$ 1,000
Series A-1	16,398,995	16,398,995	17,142	17,219
Series B	38,778,091	38,778,090	44,484	44,595
Series C	62,962,952	33,333,329	39,460	45,000
Total	119,155,472	89,525,848	$ 102,082	$ 107,814

ANNEXON, INC.
Notes to Condensed Consolidated Financial Statements
(unaudited)

As of June 30, 2019, redeemable convertible preferred stock consisted of the following:

	Shares Authorized	Shares Outstanding	Net Carrying Value (in thousands)	Liquidation Preference (in thousands)
Series A	1,015,434	1,015,434	$ 997	$ 1,000
Series A-1	16,398,995	16,398,995	17,142	17,219
Series B	38,778,091	38,778,090	44,493	44,595
Series C	62,962,952	33,333,329	39,984	45,000
Total	119,155,472	89,525,848	$ 102,616	$ 107,814

Common Stock

The Company reserved the following shares of common stock for issuance as follows:

	June 30, 2019
Redeemable convertible preferred stock outstanding on an as-converted basis	89,525,848
Options issued and outstanding	18,588,587
Options available for future grant	3,095,690
Total common stock reserved	111,210,125

8. Equity Incentive Plan

Stock option activity under the 2011 Equity Incentive Plan (the "Plan") was as follows:

	Shares Available for Grant	Number of Shares	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Balances as of December 31, 2018	15,480,692	6,216,272	$ 0.23	7.23	$ 2,199
Stock options granted	(13,276,801)	13,276,801	0.69		
Stock options exercised	—	(12,687)	0.21		
Stock options cancelled	891,799	(891,799)	0.53		
Balances as of June 30, 2019	3,095,690	18,588,587	$ 0.54	8.47	$ 10,024
Exercisable as of June 30, 2019		5,397,566	$ 0.25	6.80	$ 4,483

The total intrinsic value of options exercised during the six months ended June 30, 2018 and 2019 was $200,000 and $8,000, respectively. The intrinsic value is the difference between the estimated fair value of the Company's common stock at the time of exercise, as determined by the Company's Board of Directors (the "Board of Directors"), and the exercise price of the stock option.

The weighted-average grant date fair values of options granted to employees during the six months ended June 30, 2018 and 2019 were $0.33 per share and $0.63 per share, respectively.

In June 2019, the Company granted options to purchase 411,761 shares of the Company's common stock to one of its officers that will vest if the Company achieves a certain developmental milestone related to its product

candidate. The total grant date fair value of this award was $311,000 and no associated expense was recognized during the six months ended June 30, 2019 as the achievement of the performance condition was not considered probable.

Stock-Based Compensation Expense

The total stock-based compensation expense recognized for options granted was as follows (in thousands):

	Six Months Ended June 30,	
	2018	2019
Research and development	$ 58	$ 232
General and administrative	145	671
Total stock-based compensation expense	$ 203	$ 903

As of June 30, 2019, the total unrecognized stock-based compensation cost related to outstanding unvested employee stock options that are expected to vest was $7.7 million, which the Company expects to recognize over an estimated weighted-average period of 2.8 years.

To determine the value of stock option awards for stock-based compensation purposes, the Company uses the Black-Scholes option-pricing model and the assumptions discussed below. Each of these inputs is subjective and generally requires significant judgment.

Fair Value of Common Stock—The grant date fair market value of the shares of common stock underlying 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 exercises reasonable judgment and considers a number of objective and subjective factors to determine the best estimate of the fair market value, which include contemporaneous valuations performed by an independent third-party valuation firm, important developments in the Company's business, sales of the Company's redeemable convertible preferred stock, the rights, preferences and privileges of the Company's redeemable convertible preferred stock relative to those of its common stock, lack of marketability of its common stock, actual operating results, financial performance, the progress of clinical development, the likelihood of achieving a liquidity event for the Company's securityholders, the trends, developments and conditions in the life sciences and biotechnology industry sectors, the economy in general and the stock price performance and volatility of comparable public companies.

Expected Term—The expected term represents the period that the Company's stock-based awards are expected to be outstanding and is determined using the simplified method (based on the mid-point between the vesting date and the end of the contractual term).

Expected Volatility—Because the Company is privately held and does not have any trading history for its common stock, the expected volatility was estimated based on the average volatility for comparable publicly traded life science companies over a period equal to the expected term of the stock option grants. The comparable companies were chosen based on the similar size, stage in the life cycle, or area of specialty. The Company will continue to apply this process until a sufficient amount of historical information regarding the volatility of its own stock price becomes available.

Risk-Free Interest Rate—The risk-free interest rate is based on the U.S. Treasury zero coupon issues in effect at the time of grant for periods corresponding with the expected term of the option.

ANNEXON, INC.
Notes to Condensed Consolidated Financial Statements
(unaudited)

Dividend Yield—The Company has never paid dividends on its common stock and has no plans to pay dividends on its common stock. Therefore, the Company used an expected dividend yield of zero.

The fair value of each award issued during the six months ended June 30, 2018 and 2019 was estimated on the date of grant using the Black-Scholes option pricing model with the following assumptions:

	Six Months Ended June 30,	
	2018	2019
Expected term (in years)	6.08	6.02-6.08
Expected volatility	76%-77%	76%-77%
Risk-free interest rate	2.49%-2.87%	1.87%-2.61%
Dividend yield	—	—

9. Income Taxes

For each of the six months ended June 30, 2018 and 2019, the Company incurred insignificant amounts for an income tax provision. The U.S. federal and California deferred tax assets generated from the Company's net operating losses have been fully reserved, as the Company believes it is not more likely than not that the benefit will be realized.

10. Net Loss and Unaudited Pro Forma Net Loss Per Share Attributable to Common Stockholders

The following outstanding potentially dilutive shares have been excluded from the calculation of diluted net loss per share due to their anti-dilutive effect:

	Six Months Ended June 30,	
	2018	2019
Redeemable convertible preferred stock on an as-converted basis	56,192,519	89,525,848
Stock options to purchase common stock	6,267,051	18,588,587
Total	62,459,570	108,114,435

ANNEXON, INC.
Notes to Condensed Consolidated Financial Statements
(unaudited)

Unaudited Pro Forma Net Loss Per Share Attributable to Common Stockholders

The following table sets forth the computation of unaudited pro forma basic and diluted net loss per share during the six months ended June 30, 2019 (in thousands, except share and per share amounts):

	Six Months Ended June 30, 2019
Numerator:	
Net loss attributable to common stockholders	$ (18,587)
Loss on remeasurement of the redeemable convertible preferred stock liability	4,330
Accretion to redemption value on redeemable convertible preferred stock	534
Net loss used in computing pro forma net loss per share attributable to common stockholders, basic and diluted	$ (13,723)
Denominator:	
Weighted-average shares of common stock used in computing net loss per share attributable to common stockholders	3,821,386
Pro forma adjustment to reflect conversion of redeemable convertible preferred stock	
Weighted-average shares of common stock used in computing pro forma net loss per share attributable to common stockholders, basic and diluted	
Pro forma net loss per share attributable to common stockholders, basic and diluted	$

Table of Contents

Shares

Common Stock

Prospectus

J.P. Morgan **BofA Merrill Lynch** **Cowen**

, 2020

Through and including , 2020 (the 25th day after the commencement of this offering), all dealers that buy, sell or trade shares of our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the costs and expenses, other than the underwriting discounts and commissions, payable by Annexon, Inc., or the Registrant, in connection with the sale of our common stock being registered. All amounts are estimates except for the Securities and Exchange Commission, or SEC, registration fee, the Financial Industry Regulatory Authority, or FINRA, filing fee and the Nasdaq Global Market, or Nasdaq, listing fee.

ITEM	Amount Paid or to be Paid
SEC registration fee	$ *
FINRA filing fee	*
Nasdaq listing fee	*
Printing expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent fees and expenses	*
Miscellaneous expenses	*
Total	$ *

* To be filed by amendment.

Item 14. Indemnification of Directors and Officers.

As permitted by Section 102 of the Delaware General Corporation Law, we have adopted provisions in our amended and restated certificate of incorporation and amended and restated bylaws that limit or eliminate the personal liability of our directors for a breach of their fiduciary duty of care as a director. The duty of care generally requires that, when acting on behalf of the corporation, directors exercise an informed business judgment based on all material information reasonably available to them. Consequently, a director will not be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except for 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;
- any act related to unlawful stock repurchases, redemptions or other distributions or payment of dividends; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not affect the availability of equitable remedies such as injunctive relief or rescission. Our amended and restated certificate of incorporation also authorizes us to indemnify our officers, directors and other agents to the fullest extent permitted under Delaware law.

As permitted by Section 145 of the Delaware General Corporation Law, our amended and restated bylaws provide that:

- we may indemnify our directors, officers and employees to the fullest extent permitted by the Delaware General Corporation Law, subject to limited exceptions;

- we may advance expenses to our directors, officers and employees in connection with a legal proceeding to the fullest extent permitted by the Delaware General Corporation Law, subject to limited exceptions; and
- the rights provided in our amended and restated bylaws are not exclusive.

Our amended and restated certificate of incorporation and our amended and restated bylaws provide for the indemnification provisions described above and elsewhere herein. We have entered or will enter into, and intend to continue to enter into, separate indemnification agreements with our directors and officers that may be broader than the specific indemnification provisions contained in the Delaware General Corporation Law. These indemnification agreements generally require us, among other things, to indemnify our officers and directors against certain liabilities that may arise by reason of their status or service as directors or officers, other than liabilities arising from willful misconduct. These indemnification agreements also generally require us to advance any expenses incurred by the directors or officers as a result of any proceeding against them as to which they could be indemnified. These indemnification provisions and the indemnification agreements may be sufficiently broad to permit indemnification of our officers and directors for liabilities, including reimbursement of expenses incurred, arising under the Securities Act of 1933, as amended, or the Securities Act.

We have purchased and currently intend to maintain insurance on behalf of each and every person who is or was a director or officer of the company against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions.

The form of underwriting agreement for this initial public offering provides for indemnification by the underwriters of us and our officers and directors who sign this registration statement for specified liabilities, including matters arising under the Securities Act.

Item 15. Recent Sales of Unregistered Securities.

Since June 30, 2016, we have made the following sales of unregistered securities:

Equity Plan-Related Issuances

1. Since June 30, 2016, we have granted to our directors, employees and consultants options to purchase 18,937,160 shares of our common stock with per share exercise prices ranging from $0.21 to $0.85 under our 2011 Equity Incentive Plan, as amended, or the 2011 Plan.
2. Since June 30, 2016, we have issued to certain of our directors, employees and consultants an aggregate of 834,776 shares of our common stock at per share purchase prices ranging from $0.16 to $0.21 pursuant to exercises of options under the 2011 Plan for an aggregate purchase price of $150,088.
3. Since June 30, 2016, we have issued to our consultants 75,000 shares of restricted common stock at a price per share of $0.21 (including non-cash issuances as consideration for services) under the 2011 Plan for an aggregate purchase price $15,750.

Sale of Preferred Stock

4. Between June 2016 and February 2018, we issued and sold an aggregate of 38,778,090 shares of Series B redeemable convertible preferred stock to 17 accredited investors at $1.15 per share for gross proceeds of approximately $44.6 million.
5. Between December 2018 and August 2019, we issued and sold an aggregate an aggregate of 55,555,546 shares of Series C redeemable convertible preferred stock to 10 accredited investors at $1.35 per share for gross proceeds of approximately $75.0 million.

The offers, sales and issuances of the securities described in paragraphs (1) through (3) were deemed to be exempt from registration under Rule 701 promulgated under the Securities Act as transactions under compensatory benefit plans and contracts relating to compensation, or under Section 4(a)(2) of the Securities Act as a transaction by an issuer not involving a public offering. The recipients of such securities were our directors, employees or bona fide consultants and received the securities under our equity incentive plans. Appropriate legends were affixed to the securities issued in these transactions. Each of the recipients of securities in these transactions had adequate access, through employment, business or other relationships, to information about us.

The offers, sales and issuances of the securities described in paragraphs (4) through (5) were deemed to be exempt under Section 4(a)(2) of the Securities Act or Rule 506 of Regulation D under the Securities Act as a transaction by an issuer not involving a public offering. The recipients of securities in each of these transactions acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the securities issued in these transactions. Each of the recipients of securities in these transactions was an accredited investor within the meaning of Rule 501 of Regulation D under the Securities Act and had adequate access to information about us. No underwriters were involved in these transactions.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits.

The exhibits listed below are filed as part of this registration statement.

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Date	Number	
1.1*	Form of Underwriting Agreement				
3.1	Amended and Restated Certificate of Incorporation, as amended, currently in effect				X
3.2*	Form of Amended and Restated Certificate of Incorporation, to be in effect immediately prior to the completion of this offering				
3.3	Bylaws, currently in effect				X
3.4*	Form of Amended and Restated Bylaws, to be in effect immediately prior to the completion of this offering				
4.1	Reference is made to Exhibits 3.1 through 3.4				
4.2*	Form of Common Stock Certificate				
5.1*	Opinion of Latham & Watkins LLP				
10.1	Amended and Restated Investors' Rights Agreement, dated December 4, 2018, by and among the Registrant and the investors listed therein				X
10.2†	Exclusive (Equity) Agreement, dated November 21, 2011, by and between the Registrant and The Board of Trustees of the Leland Stanford Junior University				X
10.3	Lease, dated December 19, 2016, by and between the Registrant and Bayside Acquisition, LLC				X
10.4(a)#	2011 Equity Incentive Plan, as amended				X
10.4(b)#*	Form of Stock Option Agreement under 2011 Equity Incentive Plan				

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Date	Number	
10.5(a)#*	2020 Incentive Award Plan				
10.5(b)#*	Form of Stock Option Grant Notice and Stock Option Agreement under the 2020 Incentive Award Plan				
10.5(c)#*	Form of Restricted Stock Award Grant Notice and Restricted Stock Award Agreement under the 2020 Incentive Award Plan				
10.5(d)#*	Form of Restricted Stock Unit Award Grant Notice and Restricted Stock Unit Award Agreement under the 2020 Incentive Award Plan				
10.6#*	2020 Employee Stock Purchase Plan				
10.7#*	Employment Agreement by and between the Registrant and Douglas Love, Esq.				
10.8#*	Employment Agreement by and between the Registrant and Sanjay Keswani, MBBS, BSc, FRCP				
10.9#*	Employment Agreement by and between the Registrant and Jennifer Lew				
10.10#*	Employment Agreement by and between the Registrant and Lesley Stolz, Ph.D.				
10.11#*	Employment Agreement by and between the Registrant and Ted Yednock, Ph.D.				
10.12#*	Non-Employee Director Compensation Program				
10.13*	Form of Indemnification Agreement for directors and officers				
21.1	List of subsidiaries				X
23.1*	Consent of KPMG LLP, independent registered public accounting firm				
23.2*	Consent of Latham & Watkins LLP (included in Exhibit 5.1)				
24.1*	Power of Attorney (reference is made to the signature page to the Registration Statement)				

* To be filed by amendment.
\# Indicates management contract or compensatory plan.
† Certain portions of this document that constitute confidential information have been redacted in accordance with Regulation S-K, Item 601(b)(10).

(b) Financial Statement Schedules.

Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the consolidated financial statements or 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 SEC such indemnification is against public policy as expressed in the Securities 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 of 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 the City of South San Francisco, State of California on , 2020.

ANNEXON, INC.

By: _____
Douglas Love, Esq.
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Douglas Love and Jennifer Lew, and each of them, as his or her true and lawful attorneys-in-fact and agents, each with the full power of substitution, for him or her and in his or her name, place or stead, in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments), and to sign any registration statement for the same offering covered by this registration statement that is to be effective upon filing pursuant to Rule 462(b) promulgated under the Securities Act, and all post-effective amendments thereto, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their, his or her 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
Douglas Love, Esq.	President, Chief Executive Officer and Director *(Principal Executive Officer)*	, 2020
Jennifer Lew	Executive Vice President and Chief Financial Officer *(Principal Financial and Accounting Officer)*	, 2020
William D. Young	Chairman of the Board of Directors	, 2020
Emmett Cunningham, M.D., Ph.D., M.P.H.	Director	, 2020
Carol Gallagher, Pharm.D.	Director	, 2020
Campbell Murray, M.D.	Director	, 2020
Muneer A. Satter	Director	, 2020

Table of Contents

SIGNATURE	TITLE	DATE
_____ Ricky Sun, Ph.D.	Director	, 2020
_____ Thomas G. Wiggans	Director	, 2020

Exhibit 3.1

FIFTH AMENDED AND RESTATED

CERTIFICATE OF INCORPORATION OF

ANNEXON, INC.

Annexon, Inc., a corporation organized and existing under the laws of the State of Delaware (the "***Corporation***"), certifies that:

1. The name of the Corporation is Annexon, Inc. The Corporation's original Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on March 3, 2011.

2. The Corporation's Amended and Restated Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on August 15, 2011, the Corporation's Second Amended and Restated Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on October 1, 2013, the Corporation's Third Amended and Restated Certificate of Incorporation was filed with the Secretary of the State of Delaware on December 10, 2014 and the Corporation's Fourth Amended and Restated Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on June 3, 2016.

3. This Fifth Amended and Restated Certificate of Incorporation was duly adopted in accordance with Sections 242 and 245 of the General Corporation Law of the State of Delaware, and has been duly approved by the written consent of the stockholders of the Corporation in accordance with Section 228 of the General Corporation Law of the State of Delaware.

4. The text of the Fourth Amended and Restated Certificate of Incorporation is amended and restated to read as set forth in EXHIBIT A attached hereto.

IN WITNESS WHEREOF, Annexon, Inc. has caused this Fifth Amended and Restated Certificate of Incorporation to be signed by Douglas Love, a duly authorized officer of the Corporation, on December 4, 2018.

/s/ Douglas Love
Douglas Love, Chief Executive Officer

EXHIBIT A

ARTICLE I

The name of the Corporation is Annexon, Inc.

ARTICLE II

The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware.

ARTICLE III

The address of the Corporation's registered office in the State of Delaware is 3500 South DuPont Highway, City of Dover, County of Kent, zip code 19901. The name of the registered agent at such address is Incorporating Services, Ltd.

ARTICLE IV

The total number of shares of stock that the Corporation shall have authority to issue is two hundred sixty-nine million, one hundred fifty-five thousand, four hundred seventy-two (269,155,472), consisting of one hundred fifty million (150,000,000) shares of common stock, $0.001 par value per share ("***Common Stock***"), and one hundred nineteen million, one hundred fifty-five thousand, four hundred seventy-two (119,155,472) shares of Preferred Stock. $0.001 par value per share. The first series of Preferred Stock shall be designated "***Series A Preferred Stock***" and shall consist of one million fifteen thousand four hundred thirty-four (1,015,434) shares; the second series of Preferred Stock shall be designated "***Series A-1 Preferred Stock***" and shall consist of sixteen million, three hundred ninety-eight thousand, nine hundred ninety-five (16,398,995) shares; the third series of Preferred Stock shall be designated "***Series B Preferred Stock***" and shall consist of thirty eight million, seven hundred seventy-eight thousand, ninety-one (38,778,091) shares; and the fourth series of Preferred Stock shall be designated "***Series C Preferred Stock***" and shall consist of sixty-two million, nine hundred sixty-sixty two thousand, nine hundred fifty-two (62,962,952) shares.

ARTICLE V

The terms and provisions of the Common Stock and Preferred Stock are as follows:

1. **Definitions**. For purposes of this Fifth Amended and Restated Certificate of Incorporation, the following definitions shall apply:

(a) "***Affiliate***" shall mean, with respect to any specified person, any other person who or which, directly or indirectly, controls, is controlled by or is under common control with such specified person, including, without limitation any partner, member, officer, director, manager or employee of such person and any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or is under common investment management with, such person.

(b) "***Board of Directors***" shall mean the Board of Directors of the Corporation.

(c) "***Conversion Price***" shall mean the Series C Conversion Price, Series B Conversion Price, the Series A-1 Conversion Price or the Series A Conversion Price, as applicable.

(d) "***Convertible Securities***" shall mean any evidences of indebtedness, shares or other securities convertible into or exchangeable for Common Stock.

(e) "***Corporation***" shall mean Annexon, Inc.

(f) "***Distribution***" shall mean the transfer of cash or other property without consideration whether by way of dividend or otherwise, other than dividends on Common Stock payable solely in Common Stock or the purchase or redemption of shares of the Corporation by the Corporation or its subsidiaries for cash or property other than: (i) repurchases of Common Stock issued to or held by employees, officers, directors or consultants of the Corporation upon termination of their employment or services pursuant to agreements in effect at the Effective Time or approved by the Board of Directors after the Effective Time and providing for the right of said repurchase, (ii) repurchases of Common Stock issued to or held by employees, officers, directors or consultants of the Corporation or its subsidiaries pursuant to rights of first refusal contained in agreements in effect at the Effective Time or approved by the Board of Directors after the Effective Time providing for such right, (iii) repurchase of capital stock of the Corporation in connection with the settlement of disputes with any stockholder provided that such settlement is approved by the Board of Directors (including at least three of the Preferred Directors), and (iv) any other repurchase or redemption of capital stock of the Corporation approved by the Requisite Preferred Consent.

(g) "***Dividend Rate***" shall mean an annual rate of $0.081 per share for the Series C Preferred Stock; $0.069 per share for the Series B Preferred Stock and $0.063 per share for the Series A-1 Preferred Stock (each as subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein).

(h) "***Effective Time***" shall mean the time and date of the filing of this Fifth Amended and Restated Certificate of Incorporation.

(i) "***Options***" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(j) "***New Investor***" means a holder of Series C Preferred Stock that does not own, and is not an Affiliate of a current holder of, any shares of Series A Preferred Stock, Series A-1 Preferred Stock or Series B Preferred Stock.

(k) "***Person***" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

(l) "***Purchase Agreement***" shall mean that certain Series C Stock Purchase Agreement, dated on or about December 4, 2018, by and among the Company and the persons and entities listed on Exhibit A thereto.

(m) "***Preferred Stock***" shall mean, collectively, the Series A Preferred Stock, the Series A-1 Preferred Stock, the Series B Preferred Stock and the Series C Preferred Stock.

(n) "***Recapitalization***" shall mean any stock dividend, stock split, combination of shares, reorganization, recapitalization, reclassification or other similar event.

(o) "***Requisite Preferred Consent***" shall mean the consent or vote of the holders of at least sixty percent (60%) of the outstanding shares of Preferred Stock, voting as a single class and on an as-converted basis, including (A) prior to the Second Closing (as defined in the Purchase Agreement) one or more New Investors holding at least 3,700,000 shares of Series C Preferred Stock (as adjusted for stock splits, recapitalizations and similar events) in the aggregate or (B) following the Second Closing, one or more New Investors of at least 7,400,000 shares of Series C Preferred Stock (as adjusted for stock splits, recapitalizations and similar events) in the aggregate (provided, that if either of the two largest New Investors (with shares held by Affiliates aggregated for purposes of determining the largest holders) immediately prior to the Second Closing is a Defaulting Investor (as defined in the Purchase Agreement), then such required share threshold shall remain at 3,700,000 shares of Series C Preferred Stock (as adjusted for stock splits, recapitalizations and similar events) or such lesser number such that at least one of the two largest New Investors (with shares held by Affiliates aggregated for purposes of determining the largest holders) following the Second Closing is required).

(p) "***Series A Conversion Price***" shall mean $0.9848 per share for the Series A Preferred Stock (subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein).

(q) "***Series A-1 Conversion Price***" shall mean $1.05 per share for the Series A Preferred Stock (subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein).

(r) "***Series B Conversion Price***" shall mean $1.15 per share for the Series B Preferred Stock (subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein).

(s) "***Series C Conversion Price***" shall mean $1.35 per share for the Series C Preferred Stock (subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein).

(t) "***Series A Distribution Preference***" shall mean $0.9848 per share for the Series A Preferred Stock (subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein).

(u) "***Series A-1 Distribution Preference***" shall mean $1.05 per share for the Series A-1 Preferred Stock (subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein).

(v) "***Series B Distribution Preference***" shall mean $1.15 per share for the Series B Preferred Stock (subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein).

(w) "***Series C Distribution Preference***" shall mean $1.35 per share for the Series C Preferred Stock (subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein).

(x) "***Series A Original Issue Price***" shall mean $0.9848 per share for the Series A Preferred Stock (subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein).

(y) "***Series A-1 Original Issue Price***" shall mean $1.05 per share for the Series A-1 Preferred Stock (subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein).

(z) "***Series B Original Issue Price***" shall mean $1.15 per share for the Series B Preferred Stock (subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein).

(aa) "***Series C Original Issue Price***" shall mean $1.35 per share for the Series C Preferred Stock (subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein).

(bb) "***Series A Preferred Distribution Threshold Amount***" shall mean $1.9696 per share for the Series A Preferred Stock (subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein).

(cc) "***Series A-1 Preferred Distribution Threshold Amount***" shall mean $2.10 per share for the Series A-1 Preferred Stock (subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein).

(dd) "***Series B Preferred Distribution Threshold Amount***" shall mean $2.30 per share for the Series A-1 Preferred Stock (subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein).

(ee) "***Series C Preferred Distribution Threshold Amount***" shall mean 1.35 per share for the Series C Preferred Stock (subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein).

2. **Dividends**.

(a) ***Preferred Stock***.

(i) In any calendar year, the holders of the outstanding shares of Series C Preferred Stock, Series B Preferred Stock and the outstanding shares of Series A-1 Preferred Stock shall be entitled to receive dividends, when, as and if declared by the Board of Directors, out of any assets at the time available therefor, at the Dividend Rate applicable to such series of Preferred Stock, payable on a *pari passu* basis and in preference and priority to any declaration or payment of any Distribution on Series A Preferred Stock or Common Stock of the Corporation in such calendar year. No Distributions shall be made with respect to the Series A Preferred Stock or Common Stock unless all declared dividends on the Series C Preferred Stock, Series B Preferred Stock and the Series A-1 Preferred Stock have been paid to the Series C Preferred Stock, Series B Preferred Stock and the Series A-1 Preferred Stock holders, respectively. The right to receive dividends on shares of Series C Preferred Stock, Series B Preferred Stock and Series A-1 Preferred Stock shall not be cumulative, and no right to dividends shall accrue to holders of Series C Preferred Stock, Series B Preferred Stock or Series A-1 Preferred Stock by reason of the fact that dividends on said shares are not declared or paid.

(ii) In any calendar year, subject to the prior dividend rights of the Series C Preferred Stock, Series B Preferred Stock and the Series A-1 Preferred Stock set forth in Section 2(a)(i), and the consent of the Requisite Preferred Consent, the holders of outstanding shares of Series A Preferred Stock shall be entitled to receive dividends, when, as and if declared by the Board of Directors, out of any assets at the time available therefor, payable in preference and priority to any declaration or payment of any dividend on Common Stock of the Corporation in such calendar year. No Distributions shall be made with respect to the Common Stock unless all declared dividends on the Series A Preferred Stock have been paid to the Series A Preferred Stock holders. The right to receive dividends on shares of Series A Preferred Stock shall not be cumulative, and no right to dividends shall accrue to holders of Series A Preferred Stock by reason of the fact that dividends on said shares are not declared or paid.

(b) ***Common Stock***. Dividends may be paid on the Common Stock when, as and if declared by the Board of Directors, subject to the prior dividend rights of the Preferred Stock and to Section 8 and to Section 2(c) below.

(c) ***Additional Dividends***. The Corporation shall not declare, set aside or pay any dividends on any share of Common Stock (other than dividends on Common Stock payable solely in Common Stock) unless a dividend (including the amount of any dividends paid pursuant to the above provisions of this Section 2) is declared, set aside or paid with respect to all outstanding shares of Preferred Stock in an amount for each such share of Preferred Stock at least equal to the aggregate amount of the dividends for all shares of Common Stock into which each such share of Preferred Stock could then be converted, calculated on the record date for determination of holders entitled to receive such dividend.

(d) ***Consent to Certain Distributions***. As authorized by Section 402.5(c) of the California Corporations Code, if Section 502 or Section 503 of the California Corporations Code is applicable to a payment made by the Corporation then such applicable section or sections shall not apply if such payment is a payment made by the Corporation in connection with (i) repurchases of Common Stock issued to or held by employees, officers, directors or consultants of the Corporation or its subsidiaries upon termination of their employment or services pursuant to agreements in effect at the Effective Time or approved by the Board of Directors after the Effective Time and providing for the right of said repurchase, (ii) repurchases of Common Stock issued to or held by employees, officers, directors or consultants of the Corporation or its subsidiaries pursuant to rights of first refusal contained in agreements in effect at the Effective Time or approved by the Board of Directors (including at least three of the Preferred Directors) after the Effective Time providing for such right, (iii) repurchases of Common Stock or Preferred Stock in connection with the settlement of disputes with any stockholder provided that such settlement is approved by the Board of Directors (including at least three of the Preferred Directors), (iv) any other repurchase or redemption of Common Stock or Preferred Stock approved by Requisite Preferred Consent.

(e) ***Waiver of Dividends***. Any dividend preference of any series of Preferred Stock may be waived, in whole or in part, by the consent or vote of the holders of the majority of the outstanding shares of such series; provided that, (i) with respect to any series vote of the holders of Series B Preferred Stock, such majority shall include at least three of the four largest holders of Series B Preferred Stock (with shares held by Affiliates aggregated for purposes of determining the largest holders) and (the "***Series B Waiver***") (ii) with respect to any series vote of the holders of Series C Preferred Stock, such majority shall include at least one or more New Investors holding, (A) prior to the Second Closing (as defined in the Purchase Agreement), at least 3,700,000 shares of Series C Preferred Stock (as adjusted for stock splits, recapitalizations and similar events) in the aggregate or (B) following the Second Closing, a holder or holders of at least 7,400,000 shares of Series C Preferred Stock (as adjusted for stock splits, recapitalizations and similar events) in the aggregate (provided, that if either of the two largest New Investors (with shares held by Affiliates aggregated for purposes of determining the largest holders) immediately prior to the Second Closing is a Defaulting Investor (as defined below), then such required share threshold shall remain at 3,700,000 shares of Series C Preferred Stock (as adjusted for stock splits, recapitalizations and similar events) or such lesser number such that at least one of the two largest New Investors (with shares held by Affiliates aggregated for purposes of determining the largest holders) following the Second Closing is required) (the "***Series C Waiver***").

3. **Liquidation Distribution Rights**.

(a) ***Tier 1 Distributions***. In the event of any Deemed Liquidation Event (as defined below), either voluntary or involuntary, the holders of the Series C Preferred Stock, Series B Preferred Stock and Series A-1 Preferred Stock shall be entitled to receive, on a *pari passu* basis, prior and in preference to any Distribution of any of the assets of the Corporation to the holders of the Series A Preferred Stock or Common Stock by reason of their ownership of such stock, (x) an amount per share for each share of Series C Preferred Stock held by them equal to the sum of (i) the Series C Distribution Preference specified for such share of Series C Preferred Stock, (ii) the Additional Liquidation Proceeds, if applicable (as defined in the Purchase Agreement), and (iii) all declared but unpaid dividends (if any) on such share of Series C Preferred Stock, (y) an amount per share for each share of Series B Preferred Stock held by them equal to the sum of (i) the Series B Distribution Preference specified for such share of Series B Preferred Stock and (ii) all declared but unpaid dividends (if any) on such share of Series B Preferred Stock, and (z) an amount per share for each share of Series A-1 Preferred Stock held by them equal to the sum of (i) the Series A-1 Distribution Preference specified for such share of Series A-1 Preferred Stock and (ii) all declared but unpaid dividends (if any) on such share of Series A-1 Preferred Stock. If upon a Deemed Liquidation Event, the assets of the Corporation available for Distribution to the holders of the Series C Preferred Stock, Series B Preferred Stock and Series A-1 Preferred Stock are insufficient to permit the payment to such holders of the full amounts specified in this Section 3(a), then the entire assets of the Corporation available for Distribution shall be distributed with equal priority and *pro rata* among the holders of the Series C Preferred Stock, Series B Preferred Stock and Series A-1 Preferred Stock in proportion to the full amounts they would otherwise be entitled to receive pursuant to this Section 3(a).

(b) ***Tier 2 Distributions***. In the event of any Deemed Liquidation Event, either voluntary or involuntary, after the payment of all preferential amounts required to be paid to the holders of shares of Series C Preferred Stock, Series B Preferred Stock and Series A-1 Preferred Stock, the holders of the Series A Preferred Stock shall be entitled to receive, prior and in preference to any Distribution of any of the assets of the Corporation to the holders of the Common Stock by reason of their ownership of such stock, an amount per share for each share of Series A Preferred Stock held by them equal to the sum of (i) the Series A Distribution Preference specified for such share of Series A Preferred Stock and (ii) all declared but unpaid dividends (if any) on such share of Series A Preferred Stock. If upon a Deemed Liquidation Event, and after the payment of all preferential amounts required to be paid to the holders of shares of Series A-1 Preferred Stock, the assets of the Corporation available for Distribution to the holders of the Series A Preferred Stock are insufficient to permit the payment to such holders of the full amounts specified in this Section 3(b), then the remaining assets of the Corporation available for Distribution shall be distributed with equal priority and *pro rata* among the holders of the Series A Preferred Stock in proportion to the full amounts they would otherwise be entitled to receive pursuant to this Section 3(b).

(c) ***Tier 3 Distributions***. After the payment of all preferential amounts required to be paid to the holders of shares of Series C Preferred Stock, Series B Preferred Stock, Series A-1 Preferred Stock and Series A Preferred Stock pursuant to Sections 3(a) and 3(b) above, Distributions by the Corporation shall be distributed, with equal priority and *pro rata* (but subject to the below proviso) among the holders of the Preferred Stock and Common Stock in proportion to the number of shares of Common Stock held by them with the shares of Preferred Stock being treated for this purpose as if they had been converted to shares of Common Stock at the then applicable Conversion Rate, until the aggregate amount of all Distributions paid with respect to each share of Preferred Stock equals, with respect to the Series C Preferred Stock, the Series C Preferred Distribution Threshold Amount; with respect to the Series B Preferred Stock, the Series B Preferred Distribution Threshold Amount, with respect to the Series A-1 Preferred Stock, the Series A-1 Preferred Distribution Threshold Amount, and with respect to the Series A Preferred Stock, the Series A Preferred Distribution Threshold Amount; and *provided, that* the aggregate amount of all Distributions paid with respect to each share of Series C Preferred Stock shall not exceed the Series C Preferred Distribution Threshold Amount, the aggregate amount of all Distributions paid with respect to each share of Series B Preferred Stock shall not exceed the Series B Preferred Distribution Threshold Amount, the aggregate amount of all Distributions paid with respect to each share of Series A-1 Preferred Stock shall not exceed the Series A-1 Preferred Distribution Threshold Amount, and the aggregate amount of all Distributions paid with respect to each share of Series A Preferred Stock shall not exceed the Series A Preferred Distribution Threshold Amount.

(d) ***Tier 4 Distributions***. After Distributions equal to the Series C Preferred Distribution Threshold Amount with respect to the holders of Series C Preferred Stock, the Series B Preferred Distribution Threshold Amount with respect to the holders of Series B Preferred Stock, the Series A-1 Preferred Distribution Threshold Amount with respect to the holders of Series A-1 Preferred Stock, and the Series A Preferred Distribution Threshold Amount with respect to the holders of Series A Preferred Stock have been paid with respect to each share of Preferred Stock, pursuant to Section 3(c), Distributions by the Corporation shall be distributed *pro rata* among the holders of Common Stock in proportion to the number of shares of Common Stock held by them.

(e) ***Reorganization***. For purposes of this Fifth Amended and Restated Certificate of Incorporation, "***Deemed Liquidation Event***" shall mean a liquidation, dissolution or winding up of the Corporation shall be deemed to be occasioned by, or to include, (i) the acquisition of the Corporation by another Person by means of any transaction or series of related transactions to which the Corporation is party (including, without limitation, any stock acquisition, reorganization, merger or consolidation but excluding any sale of stock for capital raising purposes) other than a transaction or series of related transactions in which the holders of the voting securities of the Corporation outstanding immediately prior to such transaction or series of related transactions retain, immediately after such transaction or series of related transactions, as a result of shares in the Corporation held by such holders prior to such transaction or series of related transactions, at least a majority of the total voting power represented by the outstanding voting securities of the Corporation or such other surviving or resulting entity (or if the Corporation or such other surviving or resulting entity is a wholly-owned subsidiary immediately following such acquisition, its parent); (ii) a sale, lease, transfer, exclusive license or other disposition of all or substantially all of the assets or intellectual property of the Corporation and its subsidiaries taken as a whole by means of any transaction or series of related transactions, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly-owned subsidiary of the Corporation; or (iii) any liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary. The treatment of any transaction or series of related transactions as a Deemed Liquidation Event pursuant to clause (i) or (ii) of the preceding sentence may be waived by the Requisite Preferred Consent.

(f) ***Valuation of Non-Cash Consideration***. If any assets of the Corporation distributed to stockholders in connection with any Distribution are other than cash, then the value of such assets shall be their fair market value as determined in good faith by the Board of Directors (including at least three of the Preferred Directors), *except that* any publicly-traded securities to be distributed to stockholders in a Deemed Liquidation Event shall be valued as follows:

(i) if the securities are then traded on a national securities exchange, then the value of the securities shall be deemed to be the average of the closing prices of the securities on such exchange over the 10 trading-day period ending five trading days prior to the Distribution;

(ii) if the securities are actively traded over-the-counter, then the value of the securities shall be deemed to be the average of the closing bid prices of the securities over the 10 trading-day period ending five trading days prior to the Distribution.

In the event of a merger or other acquisition of the Corporation by another entity, the Distribution date shall be deemed to be the date such transaction closes.

For the purposes of this Section 3(f), "***trading day***" shall mean any day which the exchange or system on which the securities to be distributed are traded is open and "***closing prices***" or "***closing bid prices***" shall be deemed to be: (i) for securities traded primarily on the New York Stock Exchange or the Nasdaq Stock Market, the last reported trade price or sale price, as the case may be, at 4:00 p.m., New York time, on that day and (ii) for securities listed or traded on other exchanges, markets and systems, the market price as of the end of the regular hours trading period that is generally accepted as such for such exchange, market or system. If, after the date hereof, the benchmark times generally accepted in the securities industry for determining the market price of a stock as of a given trading day shall change from those set forth above, the fair market value shall be determined as of such other generally accepted benchmark times.

(g) ***Allocation of Escrow and Contingent Consideration***. In the event of any Deemed Liquidation Event pursuant to Section 3(e)(i), if any portion of the consideration payable to the stockholders of the Corporation is placed into escrow and/or is payable to the stockholders of the Corporation subject to contingencies, the definitive agreement for such transaction shall provide that (i) the portion of such consideration that is not placed in escrow and not subject to any contingencies (the "***Initial Consideration***") shall be allocated among the holders of capital stock of the Corporation in accordance with this Section 3 as if the Initial Consideration were the only consideration payable in connection with such transaction and (ii) any additional consideration which becomes payable to the stockholders of the Corporation upon release from escrow or satisfaction of contingencies shall be allocated among the holders of capital stock of the Corporation in accordance with this Section 3(g) after taking into account the previous payment of the Initial Consideration and the previous payment of any additional consideration as part of the same transaction.

(h) ***Deemed Conversion***. Notwithstanding the above, for purposes of determining the amount each holder of shares of Preferred Stock is entitled to receive in the event of a Deemed Liquidation Event (an "***Acquisition Distribution***"), each such holder of shares of a series of Preferred Stock shall be entitled to receive proceeds from each such Acquisition Distribution until the aggregate consideration such holder of shares of a series of Preferred Stock would receive under this Section 3 is less than the aggregate consideration such holder of shares of a series of Preferred Stock would have received had such holder not converted such series of Preferred Stock into shares of Common Stock immediately prior to the Deemed Liquidation Event, at which point such holder's shares of such series of Preferred Stock will automatically be deemed to have converted to Common Stock immediately prior to the Deemed Liquidation Event, and all further consideration for such series of Preferred Stock will be calculated on an as-converted to Common Stock basis. For clarity, (i) holders of shares of Preferred Stock shall not be required to elect whether to convert their shares at the time of any payment that is addressed by Section 3(g) above, and (ii) if any such holder shall be deemed to have converted shares of Preferred Stock into Common Stock pursuant to this paragraph, then such holder shall not be entitled to receive any distribution that would otherwise be made to holders of Preferred Stock that have not converted (or have not been deemed to have converted) into shares of Common Stock and the aggregate per share consideration that such holder receives pursuant to this Section 3 shall be no greater than the aggregate per share consideration by other holders of Common Stock pursuant to this Section 3(h).

4. **Conversion**. The holders of the Preferred Stock shall have conversion rights as follows:

(a) ***Right to Convert***. Subject to Section 5(a) of this Article V, each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share, and without the payment of additional consideration by the holder thereof, at the office of the Corporation or any transfer agent for the Preferred Stock, into that number of fully-paid, non-assessable shares of Common Stock determined by dividing the Series C Original Issue Price, with respect to Series C Preferred Stock, Series B Original Issue Price, with respect to Series B Preferred Stock, Series A-1 Original Issue Price, with respect to Series A-1 Preferred Stock, and Series A Original Issue Price, with respect to Series A Preferred Stock, by the Series C Conversion Price, with respect to Series C Preferred Stock, Series B Conversion Price, with respect to Series B Preferred Stock, Series A-1 Conversion Price, with respect to Series A-1 Preferred Stock, and Series A Conversion Price, with respect to Series A Preferred Stock. The number of shares of Common Stock into which each share of Preferred Stock of a series may be converted is hereinafter referred to as the "***Conversion Rate***" for each such series. Upon any decrease or increase in the Conversion Price for any series of Preferred Stock, as described in this Section 4, the Conversion Rate for such series shall be appropriately increased or decreased.

(b) ***Automatic Conversion***. Each share of Preferred Stock shall automatically be converted into fully-paid, non-assessable shares of Common Stock at the then effective Conversion Rate for such share (i) immediately prior to the closing of a firm-commitment underwritten initial public offering pursuant to an effective registration statement filed under the Securities Act of 1933, as amended (the "***Securities Act***"), covering the offer and sale of the Corporation's Common Stock, *provided* that the offering price per share is not less than $2.70 (as adjusted for Recapitalizations) and the aggregate net proceeds to the Corporation are greater than $50,000,000 (a "***Qualified Public Offering***") or (ii) upon the receipt by the Corporation of a written request for such conversion approved by the Requisite Preferred Consent, or, if later, the effective date for conversion specified in such requests. In addition, certain shares of Preferred Stock shall be subject to mandatory conversion in the event of a Second Closing Special Mandatory Conversion in accordance with the terms of Section 5 herein. Each of the events referred to in this Section 4(b) are referred to herein as an "***Automatic Conversion Event***" with respect to the shares of Preferred Stock subject to automatic conversion.

(c) ***Mechanics of Conversion***. No fractional shares of Common Stock shall be issued upon conversion of 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 then fair market value of a share of Common Stock as determined by the Board of Directors. For such purpose, all shares of Preferred Stock held by each holder of Preferred Stock shall be aggregated, and any resulting fractional share of Common Stock shall be paid in cash. Before any holder of Preferred Stock shall be entitled to convert the same into full shares of Common Stock, and to receive certificates therefor, the holder shall either (A) surrender the certificate or certificates therefor, duly endorsed, at the office of the Corporation or of any transfer agent for the Preferred Stock or (B) notify the Corporation or its transfer agent that such certificates have been lost, stolen or destroyed and execute an agreement reasonably satisfactory to the Corporation to indemnify the Corporation from any loss incurred by it in connection with such certificates, and shall give written notice to the Corporation at such office that the holder elects to convert the same: *provided, however,* that on the date of an Automatic Conversion Event, the outstanding shares of Preferred Stock shall be converted automatically without any further action by the holders of such shares and whether or not the certificates representing such shares are surrendered to the Corporation or its transfer agent; *provided further,* however, that the Corporation shall not be obligated to issue certificates evidencing the shares of Common Stock issuable upon such Automatic Conversion Event unless either the certificates evidencing such shares of Preferred Stock are delivered to the Corporation or its transfer agent as provided above, or the holder notifies the Corporation or its transfer agent that such certificates have been lost, stolen or destroyed and executes an agreement reasonably satisfactory to the Corporation to indemnify the Corporation from any loss incurred by it in connection with such certificates. On the date of the occurrence of an Automatic Conversion Event, each holder of record of shares of Preferred Stock shall be deemed to be the holder of record of the Common Stock issuable upon such conversion, notwithstanding that the certificates representing such shares of Preferred Stock shall not have been surrendered at the office of the Corporation, that notice from the Corporation shall not have been received by any holder of record of shares of Preferred Stock, or that the certificates evidencing such shares of Common Stock shall not then be actually delivered to such holder.

The Corporation shall, as soon as practicable after such delivery, or after such agreement and indemnification, issue and deliver at such office to such holder of Preferred Stock, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled as aforesaid and a check payable to the holder in the amount of any cash amounts payable as the result of a conversion into fractional shares of Common Stock, plus any declared and unpaid dividends on the converted Preferred Stock. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the shares of Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock on such date; provided, however, that if the conversion is in connection with an underwritten offer of securities registered pursuant to the Securities Act or a merger, sale or liquidation of the Corporation, the conversion may, at the option of any holder tendering Preferred Stock for conversion, be conditioned upon the closing of such transaction, in which event the person(s) entitled to receive the Common Stock issuable upon such conversion of the Preferred Stock shall not be deemed to have converted such Preferred Stock until immediately prior to the closing of such transaction.

(d) ***Adjustments to Conversion Price for Diluting Issues***.

(i) ***Special Definition***. For purposes of this Section 4(d), "***Additional Shares of Common***" shall mean all shares of Common Stock issued (or, pursuant to Section 4(d)(iii), deemed to be issued) by the Corporation after the filing of this Fifth Amended and Restated Certificate of Incorporation, other than issuances or deemed issuances of:

(1) shares of Common Stock actually issued upon the conversion of the Preferred Stock;

(2) shares of Common Stock and options, warrants or other rights to purchase Common Stock issued or issuable to employees, officers or directors of, or consultants or advisors to the Corporation or any subsidiary pursuant to any plan approved by the Board of Directors, including at least three of the Preferred Directors;

(3) shares of Common Stock issued or issuable upon the exercise or conversion of Options or Convertible Securities (other than the Preferred Stock);

(4) shares of Common Stock issued or issuable as a dividend or distribution on Preferred Stock or pursuant to any event for which adjustment is made pursuant to Sections 4(e), 4(f) or 4(g) hereof;

(5) shares of Common Stock issued or issuable as consideration pursuant to the acquisition of another corporation 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;

(6) shares of Common Stock issued or issuable to banks, equipment lessors or other financial institutions pursuant to a debt financing or commercial leasing transaction approved by the Board of Directors;

(7) shares of Common Stock issued or issuable in connection with sponsored research, collaboration, technology license, development, OEM, marketing or other similar agreements or strategic partnerships; provided that such issuances are approved by the Board of Directors; and

(8) shares of Common Stock issued or issuable to suppliers or third party service providers in connection with the provision of goods or services pursuant to transactions approved by the Board of Directors.

Notwithstanding the foregoing, if more than an aggregate of 1,000,000 shares of Common Stock (subject to adjustment from time to time for Recapitalizations and as otherwise set forth elsewhere herein) are issued pursuant to paragraphs 4(d)(i)(5)-(8) above, then any shares issued in excess of such threshold shall be deemed to be Additional Shares of Common for purposes hereof.

(ii) ***No Adjustment of Conversion Price***. No adjustment in the Conversion Price of a particular series of Preferred Stock shall be made in respect of the issuance of Additional Shares of Common unless the consideration per share (as determined pursuant to Sections 4(d)(v)) for an Additional Share of Common issued or deemed to be issued by the Corporation is less than the Conversion Price in effect on the date of, and immediately prior to such issue, for such series of Preferred Stock.

(iii) ***Deemed Issue of Additional Shares of Common***. In the event the Corporation at any time or from time to time after the Effective Time shall issue any Options or Convertible 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 (as set forth in the instrument relating thereto without regard to any provisions contained therein for a subsequent adjustment of such number) of Common Stock issuable upon the exercise of such Options or, in the case of Convertible Securities, the conversion or exchange of such Convertible Securities or, in the case of Options for Convertible Securities, the exercise of such Options and the conversion or exchange of the underlying securities, shall be deemed to have been 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, *provided* that in any such case in which shares are deemed to be issued:

(1) no further adjustment in the Conversion Price of any series of Preferred Stock shall be made upon the subsequent issue of Convertible Securities or shares of Common Stock in connection with the exercise of such Options or conversion or exchange of such Convertible Securities;

(2) if such Options or Convertible Securities by their terms provide, with the passage of time or otherwise, for any change in the consideration payable to the Corporation or in the number of shares of Common Stock issuable upon the exercise, conversion or exchange thereof (other than a change pursuant to the anti-dilution provisions of such Options or Convertible Securities such as this Section 4(d) or pursuant to Recapitalization provisions of such Options or Convertible Securities such as Sections 4(e), 4(f) and 4(g) hereof), the Conversion Price of each series of Preferred Stock and any subsequent adjustments based thereon shall be recomputed to reflect such change as if such change had been in effect as of the original issue thereof (or upon the occurrence of the record date with respect thereto);

(3) no readjustment pursuant to clause (2) above shall have the effect of increasing the Conversion Price of a series of Preferred Stock to an amount above the Conversion Price that would have resulted from any other issuances of Additional Shares of Common and any other adjustments provided for herein between the original adjustment date and such readjustment date;

(4) upon the expiration of any such Options or any rights of conversion or exchange under such Convertible Securities which shall not have been exercised, the Conversion Price of each series of Preferred Stock computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto) and any subsequent adjustments based thereon shall, upon such expiration, be recomputed as if:

(a) in the case of Convertible Securities or Options for Common Stock, the only Additional Shares of Common issued were the shares of Common Stock, if any, actually issued upon the exercise of such Options or the conversion or exchange of such Convertible Securities and the consideration received therefor was the consideration actually received by the Corporation for the issue of such exercised Options plus the consideration actually received by the Corporation upon such exercise or for the issue of all such Convertible Securities which were actually converted or exchanged, plus the additional consideration, if any, actually received by the Corporation upon such conversion or exchange, and

(b) in the case of Options for Convertible Securities, only the Convertible Securities, if any, actually issued upon the exercise thereof were issued at the time of issue of such Options, and the consideration received by the Corporation for the Additional Shares of Common deemed to have been then issued was the consideration actually received by the Corporation for the issue of such exercised Options, plus the consideration deemed to have been received by the Corporation (determined pursuant to Section 4(d)(v)) upon the issue of the Convertible Securities with respect to which such Options were actually exercised; and

(5) if such record date shall have been fixed and such Options or Convertible Securities are not issued on the date fixed therefor, the adjustment previously made in the Conversion Price which became effective on such record date shall be canceled as of the close of business on such record date, and thereafter the Conversion Price shall be adjusted pursuant to this Section 4(d)(iii) as of the actual date of their issuance.

(iv) ***Adjustment of Conversion Price Upon Issuance of Additional Shares of Common***. In the event this Corporation shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to Section 4(d)(iii)) without consideration or for a consideration per share less than the applicable Conversion Price of a series of Preferred Stock in effect on the date of and immediately prior to such issue, then, the Conversion Price of the affected series of Preferred Stock shall be reduced, concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying such Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common so issued would purchase at such Conversion Price, and the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common so issued. Notwithstanding the foregoing, the Conversion Price shall not be reduced at such time if the amount of such reduction would be less than $0.01, but any such amount shall be carried forward, and a reduction will be made with respect to such amount at the time of, and together with, any subsequent reduction which, together with such amount and any other amounts so carried forward, equal $0.01 or more in the aggregate. For the purposes of this Section 4(d)(iv), all shares of Common Stock issuable upon conversion of all outstanding shares of Preferred Stock and the exercise and/or conversion of any other outstanding Convertible Securities and all outstanding Options shall be deemed to be outstanding.

(v) ***Determination of Consideration***. For purposes of this Section 4(d), the consideration received by the Corporation for the issue (or deemed issue) of any Additional Shares of Common shall be computed as follows:

(1) ***Cash and Property***. Such consideration shall:

(a) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation before deducting any reasonable discounts, commissions or other expenses allowed, paid or incurred by the Corporation for any underwriting or otherwise in connection with such issuance;

(b) 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

(c) in the event Additional Shares of Common 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 (a) and (b) above, as reasonably determined in good faith by the Board of Directors.

(2) ***Options and Convertible Securities***. The consideration per share received by the Corporation for Additional Shares of Common deemed to have been issued pursuant to Section 4(d)(iii) shall be determined by dividing:

(a) 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

(b) 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.

(e) ***Adjustments for Subdivisions or Combinations of Common Stock***. In the event the outstanding shares of Common Stock shall be subdivided (by stock split, by payment of a stock dividend or otherwise), into a greater number of shares of Common Stock, the Conversion Price of each series of Preferred Stock in effect immediately prior to such subdivision shall, concurrently with the effectiveness of such subdivision, be proportionately decreased. In the event the outstanding shares of Common Stock shall be combined (by reclassification or otherwise) into a lesser number of shares of Common Stock, the Conversion Prices in effect immediately prior to such combination shall, concurrently with the effectiveness of such combination, be proportionately increased.

(f) ***Adjustments for Subdivisions or Combinations of Preferred Stock***. In the event the outstanding shares of Preferred Stock or a series of Preferred Stock shall be subdivided (by stock split, by payment of a stock dividend or otherwise), into a greater number of shares of Preferred Stock, the Series C Original Issue Price, the Series C Distribution Preference, and the Series C Preferred Distribution Threshold Amount with respect to shares of Series C Preferred Stock, the Series B Original Issue Price, the Series B Distribution Preference, and the Series B Preferred Distribution Threshold Amount with respect to shares of Series B Preferred Stock, the Series A-1 Original Issue Price, the Series A-1 Distribution Preference, and the Series A-1 Preferred Distribution Threshold Amount with respect to shares of Series A-1 Preferred Stock, and the Series A Original Issue Price, the Series A Distribution Preference, and the Series A Preferred Distribution Threshold Amount with respect to shares of Series A Preferred Stock, in effect immediately prior to such subdivision shall, concurrently with the effectiveness of such subdivision, be proportionately decreased. In the event the outstanding shares of Preferred Stock or a series of Preferred Stock shall be combined (by reclassification or otherwise) into a lesser number of shares of Preferred Stock, the Series C Original Issue Price, the Series C Distribution Preference, and the Series C Preferred Distribution Threshold Amount with respect to shares of Series C Preferred Stock, the Series B Original Issue Price, the Series B Distribution Preference, and the Series B Preferred Distribution Threshold Amount with respect to shares of Series B Preferred Stock, the Series A-1 Original Issue Price, the Series A-1 Distribution Preference, and the Series A-1 Preferred Distribution Threshold Amount with respect to shares of Series A-1 Preferred Stock, and the Series A Original Issue Price, the Series A Distribution Preference, and the Series A Preferred Distribution Threshold Amount with respect to shares of Series A Preferred Stock, in effect immediately prior to such combination shall, concurrently with the effectiveness of such combination, be proportionately increased.

(g) ***Adjustments for Reclassification, Exchange and Substitution***. Subject to Section 3 ("***Distribution Rights***"), if the Common Stock issuable upon conversion of the Preferred Stock shall be changed into the same or a different number of shares of any other class or classes of stock, whether by Recapitalization, capital reorganization, reclassification or otherwise (other than a subdivision or combination of shares provided for above), then, in any such event, in lieu of the number of shares of Common Stock which the holders would otherwise have been entitled to receive each holder of such Preferred Stock shall have the right thereafter to convert such shares of Preferred Stock into a number of shares of such other class or classes of stock which a holder of the number of shares of Common Stock deliverable upon conversion of such series of Preferred Stock immediately before that change would have been entitled to receive in such reorganization or reclassification, all subject to further adjustment as provided herein with respect to such other shares.

(h) ***Certificate as to Adjustments***. Upon the occurrence of each adjustment or readjustment of the Conversion Price pursuant to this Section 4, the Corporation at its expense shall promptly 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 and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, upon the written request at any time of any holder of Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth such adjustments and readjustments, (ii) the Conversion Price, Series C Distribution Preference. Series B Distribution Preference, Series A-1 Distribution Preference or Series A Distribution Preference, as applicable, and the Series C Preferred Distribution Threshold Amount, Series B Preferred Distribution Threshold Amount, the Series A-1 Preferred Distribution Threshold Amount or Series A Preferred Distribution Threshold Amount, as applicable, at the time in effect and (iii) the number of shares of Common Stock and the amount, if any, of other property which at the time would be received upon the conversion of Preferred Stock.

(i) ***Waiver of Adjustment of Conversion Price***. Notwithstanding anything herein to the contrary, any downward adjustment of the Conversion Price of any series of Preferred Stock may be waived by the consent or vote of the holders of a majority of the outstanding shares of such series either before or after the issuance causing the adjustment; *provided that*, (1) with respect to any series vote of the holders of Series B Preferred Stock, such majority shall include the Series B Waiver and (2) with respect to any series vote of the holders of Series C Preferred Stock, such majority shall include the Series C Waiver.

(j) ***Notices of Record Date***. In the event that this Corporation shall propose at any time:

(i) to declare any Distribution upon its Common Stock, whether in cash, property, stock or other securities, whether or not a regular cash dividend and whether or not out of earnings or earned surplus;

(ii) to effect any reclassification or Recapitalization of its Common Stock outstanding involving a change in the Common Stock; or

(iii) to voluntarily liquidate or dissolve or to enter into any transaction deemed to be a Deemed Liquidation Event; then, in connection with each such event, this Corporation shall send to the holders of the Preferred Stock at least 10 days' prior written notice of the date on which a record shall be taken for such Distribution (and specifying the date on which the holders of Common Stock shall be entitled thereto and, if applicable, the amount and character of such Distribution) or for determining rights to vote in respect of the matters referred to in (ii) and (iii) above.

Such written notice shall be given by first class mail (or express courier), postage prepaid, addressed to the holders of Preferred Stock at the address for each such holder as shown on the books of the Corporation and shall be deemed given on the date such notice is mailed.

The notice provisions set forth in this section may be shortened or waived prospectively or retrospectively by the Requisite Preferred Consent.

(k) ***Reservation of Stock Issuable Upon Conversion***. The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock solely for the purpose of effecting the conversion of the shares of the Preferred Stock, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purpose.

5. **Special Mandatory Conversion**.

(a) ***Trigger Event***. If (i) the Second Closing (as defined in the Purchase Agreement) is consummated in accordance with the terms of the Purchase Agreement, and (ii) any Person (including any assignee thereof), who or that is required under the Purchase Agreement to do so has not purchased and acquired at or before the Second Closing all of the shares of Series C Preferred Stock set forth opposite such person or entity's name under the heading "***Series C Shares – Second Closing***" on Exhibit A to the Purchase Agreement (each such holder, a "***Defaulting Investor***"), then, effective concurrently with the consummation of the Second Closing, each share of Preferred Stock then held by such Defaulting Investor, or then held by any transferee to which the Defaulting Investor previously transferred such shares (a "***Transferee***"), shall be automatically, and without further action on the part of such Defaulting Investor or Transferee or the Corporation, be converted into one-tenth (1/10) of one share of Common Stock (subject to appropriate adjustment for any stock splits, stock dividends, combinations, subdivisions, recapitalizations or the like) and a number of shares of Common Stock representing 90% of all shares of Common Stock (rounded up to the nearest whole share) then held by such Defaulting Investor, or then held by any Transferee, shall be automatically, and without further action on the part of such Defaulting Investor or Transferee or the Corporation, contributed back to the Corporation and cancelled without any additional consideration payable in respect thereof. Such conversion and contribution are collectively referred to as a "***Second Closing Special Mandatory Conversion***". Notwithstanding anything herein to the contrary, if a holder of Preferred Stock would be entitled to receive Common Stock upon a voluntary conversion of Preferred Stock pursuant to Sections 4(a) or 4(b) of ARTICLE V hereof (a "***Converting Holder***") occurring following the date of the Purchase Agreement, but prior to the earlier of the date of (A) the consummation of the Second Closing and (B) the amendment, waiver or termination of the Purchase Agreement such that the Second Closing will not occur or there will not be a Defaulting Investor concept in connection with such Second Closing (such earlier date, the "***Determination Date***"), then such shares of Common Stock and certificates representing such shares (each, a "***Common Certificate***") shall be held in escrow by the Corporation until the Determination Date, and if such Converting Holder is or becomes a Defaulting Investor, each such share shall automatically be further adjusted and converted into one-tenth (1/10) of one share of Common Stock (subject to appropriate adjustment for any stock splits, stock dividends, combinations, subdivisions, recapitalizations or the like) and the Corporation shall prepare a replacement certificate reflecting the as-adjusted number of shares to be delivered to such Defaulting Investor (each, a "***Converted Common Certificate***"). Following the Determination Date, the Corporation will deliver a Common Certificate or Converted Common Certificate, as applicable, to such Converting Holder in accordance with the provisions of Section 4(c) set forth above.

(b) ***Procedural Requirements***. Promptly following the consummation of the Second Closing, the Corporation shall send to each Defaulting Investor (and the relevant transferors, if applicable) written notice of such mandatory conversion and of the place designated for the surrender of such shares of Preferred Stock pursuant to this Section 5. Upon receipt of such notice, the holder of any shares of Preferred Stock converted pursuant to Section 5(a) shall promptly deliver to the Corporation during regular business hours at the office of any transfer agent of the Corporation for such series of Preferred Stock, or at such other place as may be designated by the Corporation, the certificate or certificates representing the shares of Preferred Stock so converted, 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 (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). All rights with respect to the shares of Preferred Stock converted pursuant to Section 5(a), including the rights, if any, to receive notices and vote (other than as a holder of Common Stock) and to elect a director pursuant to Section 6. will terminate at the time of the conversion provided for in Section 5(a) above (notwithstanding the failure of the holder or holders thereof to surrender the certificates for such shares at or prior to such time), except only the rights of the holders thereof, upon surrender of their certificate or certificates therefor (or lost certificate affidavit and agreement), to receive the items provided for in the next sentence of this Section 5(b). As promptly as is practicable after the Second Closing Special Mandatory Conversion, the Corporation shall issue and deliver to such holder, at the place designated by such holder, a certificate or certificates for the number of full shares of the Common Stock to which such holder is entitled, together with cash as provided in Section 4(c) 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 or sub-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/or Common Stock accordingly. Each Defaulting Investor shall cooperate as reasonably requested by the Corporation in effecting the Second Closing Special Mandatory Conversion.

6. **Voting**.

(a) ***Restricted Class Voting***. Except as otherwise expressly provided herein or as required by law, the holders of Preferred Stock and the holders of Common Stock shall vote together and not as separate classes.

(b) ***No Series Voting***. Other than as provided herein or required by law, there shall be no series voting.

(c) ***Preferred Stock.*** Each holder of Preferred Stock shall be entitled to the number of votes equal to the number of shares of Common Stock into which the shares of Preferred Stock held by such holder could be converted as of the record date. Fractional votes shall not be permitted and any fractional voting rights resulting from the above formula (after aggregating all shares into which shares of Preferred Stock held by each holder could be converted) shall be disregarded. Except as otherwise expressly provided herein or as required by law, the holders of shares of the Preferred Stock shall be entitled to vote on all matters on which the Common Stock shall be entitled to vote and may act by written consent in the same manner as the Common Stock. Holders of Preferred Stock shall be entitled to notice of any stockholders' meeting in accordance with the Bylaws of the Corporation.

(d) ***Election of Directors***. The holders of Series C Preferred Stock, voting as a separate class either by written consent or at a special meeting, shall be entitled to elect one member of the Corporation's Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors (the "***Series C Director***"), the holders of Series B Preferred Stock, voting as a separate class either by written consent or at a special meeting, shall be entitled to elect one member of the Corporation's Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors (the "***Series B Director***"), the holders of Series A-1 Preferred Stock, voting as a separate class either by written consent or at a special meeting, shall be entitled to elect three members of the Corporation's Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors (the "***Series A-1 Directors***" and, together with the Series C Director and the Series B Director, the "***Preferred Directors***"). The holders of Common Stock, voting as a separate class either by written consent or at a special meeting, shall be entitled to elect one member of the Corporation's Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors. Any additional members of the Corporation's Board of Directors shall be elected by the holders of Common Stock and Preferred Stock, voting together as a single class, If a vacancy on the Board of Directors is to be filled by the Board of Directors, only directors elected by the same class or classes of stockholders as those who would be entitled to vote to fill such vacancy shall vote to fill such vacancy.

(e) ***Adjustment in Authorized Common Stock***. 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 this 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(b)(2) of the Delaware General Corporation Law.

(f) ***Common Stock***. Each holder of shares of Common Stock shall be entitled to one vote for each share thereof held.

(g) ***California Section 2115***. To the extent that Section 2115 of the California General Corporation Law makes Section 708 subdivisions (a), (b) and (c) of the California General Corporation Law applicable to the Corporation, the Corporation's stockholders shall have the right to cumulate their votes in connection with the election of directors as provided by Section 708 subdivisions (a), (b) and (c) of the California General Corporation Law.

7. **Redemption**.

(a) Except to the extent prohibited by Delaware law governing distributions to stockholders, at any time after the fifth anniversary of the date of the filing of this Fifth Amended and Restated Certificate of Incorporation, and at the election of Requisite Preferred Consent, this Corporation shall redeem all (but not less than all) outstanding shares of Preferred Stock which have not been converted into Common Stock pursuant to Section 4, in three equal annual installments (each a "***Redemption Date***"). The Corporation shall redeem the shares of Preferred Stock by paying in cash an amount per share equal to (a) with respect to the Series C Preferred Stock, the Series C Original Issue Price, plus an amount equal to all declared and unpaid dividends thereon, whether or not earned (the "***Series C Redemption Price***"), (b) with respect to the Series B Preferred Stock, the Series B Original Issue Price, plus an amount equal to all declared and unpaid dividends thereon, whether or not earned (the "***Series B Redemption Price***"), (c) with respect to the Series A-1 Preferred Stock, the Series A-1 Original Issue Price plus an amount equal to all declared and unpaid dividends thereon, whether or not earned (the "***Series A-1 Redemption Price***"), and (d) with respect to the Series A Preferred Stock, the Series A Original Issue Price plus an amount equal to all declared and unpaid dividends thereon, whether or not earned (the "***Series A Redemption Price***"). The number of shares of a series of Preferred Stock that the Corporation shall be required under this Section 7 to redeem on any one Redemption Date shall be equal to the amount determined by dividing: (a) the aggregate number of shares of such series of Preferred Stock outstanding immediately prior to the Redemption Date by; (b) the number of remaining Redemption Dates (including the Redemption Date to which such calculation applies). For purposes hereof, the "***Redemption Price***" shall mean the Series C Redemption Price, Series B Redemption Price, the Series A-1 Redemption Price or the Series A Redemption Price, as applicable.

(b) Any redemption effected pursuant to Section 7(a) shall be made on a *pro rata* basis among the holders of Preferred Stock in proportion to the shares of Preferred Stock then held by them. Funds available for such redemption shall be used to redeem all shares of Series C Preferred Stock. Series B Preferred Stock and Series A-1 Preferred Stock, on a *pari passu* basis, before any shares of Series A Preferred Stock are redeemed. If the funds available for redemption of the Series C Preferred Stock, Series B Preferred Stock and Series A-1 Preferred Stock shall be insufficient to permit the payment to such holders of the full Series C Redemption Price. Series B Redemption Price and Series A-1 Redemption Price, as applicable, the Corporation shall effect such redemption *pro rata* among the holders of the Series C Preferred Stock, Series B Preferred Stock and Series A-1 Preferred so that each holder of Series C Preferred Stock, Series B Preferred Stock and Series A-1 Preferred Stock shall receive a redemption payment equal to a fraction of the aggregate amount available for redemption, the numerator of which is the number of shares of Series C Preferred Stock, Series B Preferred Stock or Series A-1 Preferred Stock, as applicable, held by such holder with each number multiplied by the Series C Redemption Price, Series B Redemption Price or Series A-1 Redemption Price, as applicable of each share of Series C Preferred Stock, Series B Preferred Stock or Series A-1 Preferred Stock held by such holder, and the denominator of which is the number of shares of Series C Preferred Stock, Series B Preferred Stock and Series A-1 Preferred Stock outstanding multiplied by the Series C Conversion Price, Series B Conversion Price or Series A-1 Redemption Price, as applicable, of each such outstanding share of Series C Preferred Stock, Series B Preferred Stock or Series A-1 Preferred Stock, as applicable. If the funds available for redemption of the Series A Preferred Stock shall be insufficient to permit the payment to such holders of the full Series A Redemption Price, the Corporation shall effect such redemption *pro rata* among the holders of the Series A Preferred Stock so that each holder of Series A Preferred Stock shall receive a redemption payment equal to a fraction of the aggregate amount available for redemption, the numerator of which is the number of shares of Series A Preferred Stock held by such holder with each number multiplied by the Series A Redemption Price of each share of Series A Preferred Stock held by such holder, and the denominator of which is the number of shares of Series A Preferred Stock outstanding multiplied by the Series A Redemption Price of each such outstanding share of Series A Preferred Stock.

(c) At least 15 days, but no more than 30 days prior to each Redemption Date, written notice shall be mailed, first class postage prepaid, to each holder of record (at the close of business on the business day next preceding the day on which notice is given) of the Preferred Stock to be redeemed, at the address last shown on the records of the Corporation for such holder, notifying such holder of the redemption to be effected, specifying the number of shares to be redeemed from such holder, the Redemption Date, the Redemption Price, the place at which payment may be obtained and calling upon such holder to surrender to the Corporation, in the manner and at the place designated, the holder's certificate or certificates representing the shares to be redeemed (the "***Redemption Notice***"). Except as provided herein, on or after the Redemption Date each holder of Preferred Stock to be redeemed shall surrender to this Corporation the certificate or certificates representing such shares, in the manner and at the place designated in the Redemption Notice, and thereupon the Redemption Price of such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof and each surrendered certificate shall be cancelled. In the event less than all the shares represented by any such certificate are redeemed, a new certificate shall be issued representing the unredeemed shares.

(d) From and after the applicable Redemption Date, unless there shall have been a default in payment of the Redemption Price, all rights of the holders of shares of Preferred Stock designated for redemption in the Redemption Notice as holders of Preferred Stock (except the right to receive the Redemption Price without interest upon surrender of their certificate or certificates) shall cease with respect to the shares designated for redemption on such date, and such shares shall not thereafter be transferred on the books of the Corporation or be deemed to be outstanding for any purpose whatsoever. If the funds of the Corporation available for redemption of shares of Preferred Stock on any Redemption Date are insufficient to redeem the total number of shares of Preferred Stock to be redeemed on such date, those funds which are available will be used to redeem the maximum possible number of such shares ratably among the holders of such shares to be redeemed based upon their holdings of Preferred Stock. The shares of Preferred Stock not redeemed shall remain outstanding and entitled to all the rights and preferences provided herein. At any time thereafter when additional funds of the Corporation are available for the redemption of shares of Preferred Stock such funds will immediately be used to redeem the balance of the shares which the Corporation has become obliged to redeem on any Redemption Date, but which it has not redeemed.

(e) On or prior to each Redemption Date, the Corporation may deposit the Redemption Price of all shares of Preferred Stock designated for redemption in the Redemption Notice and not yet redeemed with a bank or trust corporation having aggregate capital and surplus in excess of $100,000,000, as a trust fund for the benefit of the respective holders of the shares designated for redemption and not yet redeemed, with irrevocable instructions and authority to the bank or trust corporation to pay the Redemption Price for such shares to their respective holders on or after the Redemption Date upon receipt of notification from the Corporation that such holder has surrendered a share certificate to the Corporation pursuant to Section 7(c). As of the Redemption Date, the deposit shall constitute full payment of the shares to their holders, and from and after the Redemption Date the shares so called for redemption shall be redeemed and shall be deemed to be no longer outstanding, and the holders thereof shall cease to be stockholders with respect to such shares and shall have no rights with respect thereto except the right to receive from the bank or trust corporation payment of the Redemption Price of the shares, without interest, upon surrender of their certificates therefor. Such instructions shall also provide that any moneys deposited by the Corporation pursuant to this Section 7(e) for the redemption of shares thereafter converted into shares of the Corporation's Common Stock pursuant to Section 4 prior to the Redemption Date shall be returned to the Corporation forthwith upon such conversion. The balance of any moneys deposited by the Corporation pursuant to this Section 7(e) remaining unclaimed at the expiration of two (2) years following the Redemption Date shall thereafter be returned to the Corporation upon its request expressed in a resolution of its Board of Directors.

8. **Amendments and Changes**. At any time when shares of Preferred Stock are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, do or consent to 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 Requisite Preferred Consent, 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:

(a) amend, alter or repeal any provision of the Certificate of Incorporation or Bylaws of the Corporation;

(b) increase or decrease (other than for decreases resulting from conversion of the Preferred Stock) the authorized number of shares of Preferred Stock or any series thereof;

(c) authorize or create (by reclassification, merger or otherwise) or issue or obligate itself to issue any new class or series of equity security (including any security convertible into or exercisable for any equity security) having rights, preferences or privileges with respect to dividends, redemption or payments upon liquidation senior to or on a parity with any series of Preferred Stock or issue any additional shares of Series C Preferred Stock other than pursuant to the terms of the Purchase Agreement;

(d) liquidate, dissolve or wind-up the affairs of the Corporation, or enter into any transaction or series of related transactions deemed to be a Deemed Liquidation Event;

(e) purchase or redeem or pay any dividend on any capital stock, other than (i) stock repurchased from former employees or consultants in connection with the cessation of their employment/services pursuant to agreements in effect at the Effective Time or approved by the Board of Directors (including at least three of the Preferred Directors) after the Effective Time, at the lower of fair market value or cost or (ii) stock repurchased pursuant to rights of first refusal contained in agreements in effect at the Effective Time or approved by the Board of Directors (including at least three of the Preferred Directors) after the Effective Time providing for such right;

(f) change the size of the Board of Directors;

(g) create, or authorize the creation of, or issue, or authorize the issuance of any debt security such that the Corporation's aggregate indebtedness for borrowed money would exceed $1,000,000;

(h) create or hold capital stock in any subsidiary that is not a wholly-owned subsidiary or dispose of any subsidiary stock or all or substantially all of any subsidiary assets;

(i) make any loan or advance to, or own any stock or other securities of, any subsidiary or other corporation, partnership, or other entity unless it is wholly owned by the Corporation;

(j) make any loan or advance to any person, including, any employee or director, except advances and similar expenditures in the ordinary course of business or under the terms of an employee stock or option plan approved by the Board of Directors;

(k) guarantee any indebtedness except for trade accounts of the Corporation or any subsidiary arising in the ordinary course of business;

(l) enter into or be a party to any transaction with any director, officer or employee of the Corporation or any "associate" (as defined in Rule 12b-2 promulgated under the Securities Exchange Act of 1934, as amended) of any such person, except proprietary information and invention assignment agreements, stock purchase or stock option agreements pursuant to an employee stock or option plan approved by the Board of Directors (including at least three of the Preferred Directors) or director indemnification agreements in the form approved by the Board of Directors (including at least three of the Preferred Directors);

(m) change the principal business of the Corporation, enter new lines of business, or exit the current line of business;

(n) sell, assign, license, pledge or encumber material technology or intellectual property, other than in the ordinary course of business;

(o) adopt or amend any equity incentive plan of the Corporation; or

(p) effect a public offering pursuant to a registration statement filed with the Securities and Exchange Commission under the Securities Act other than a Qualified Public Offering.

9. **Notices**. Any notice required by the provisions of this ARTICLE V to be given to the holders of Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, and addressed to each holder of record at such holder's address appearing on the books of the Corporation.

ARTICLE VI

The Corporation is to have perpetual existence.

ARTICLE VII

Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

ARTICLE VIII

Unless otherwise set forth herein, the number of directors that constitute the Board of Directors of the Corporation shall be fixed by, or in the manner provided in, the Bylaws of the Corporation.

ARTICLE IX

Unless otherwise set forth herein and in furtherance and not in limitation of the powers conferred by statute, the Board of Directors of the Corporation is expressly authorized to adopt, amend or repeal the Bylaws of the Corporation.

ARTICLE X

1. To the fullest extent permitted by the Delaware General Corporation Law as the same exists or as may hereafter be amended, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director. If the Delaware General Corporation Law is amended 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 Delaware General Corporation Law, as so amended.

2. The Corporation shall have the power to indemnify, to the extent permitted by the Delaware General Corporation Law, as it presently exists or may hereafter be amended from time to time, 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***") by reason of the fact that he or she is or was a director, officer, employee or agent of the Corporation or is or was 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 service with respect to employee benefit plans, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with any such Proceeding.

3. Neither any amendment nor repeal of this ARTICLE X, nor the adoption of any provision of this Corporation's Certificate of Incorporation inconsistent with this ARTICLE X, shall eliminate or reduce the effect of this ARTICLE X, in respect of any matter occurring, or any action or proceeding accruing or arising or that, but for this ARTICLE X, would accrue or arise, prior to such amendment, repeal or adoption of an inconsistent provision.

ARTICLE XI

Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws may provide. The books of the Corporation may be kept (subject to any provision contained in the statutes) does outside of 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.

ARTICLE XII

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 Series A 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. No amendment or repeal of this Article XII shall apply to or have any effect on the liability or alleged liability of any officer, director or stockholder of the Corporation for or with respect to any opportunities which such officer, director or stockholder becomes aware prior to such amendment or repeal.

ARTICLE XIII

Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall, to the fullest extent permitted by law, be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (iii) any action arising pursuant to any provision of the DGCL or the Corporation's Certificate of Incorporation or Bylaws (as either may be amended from time to time), or (iv) any action asserting a claim governed by the internal affairs doctrine, except for, as to each of (i) through (iv) above, any claim as to which such court determines that there is an indispensable party not subject to the jurisdiction of such court (and the indispensable party does not consent to the personal jurisdiction of such court within ten (10) days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than such court, or for which such court does not have subject matter jurisdiction. 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 XIII.

BYLAWS OF

ANNEXON, INC.

(A DELAWARE CORPORATION)

TABLE OF CONTENTS

BYLAWS
OF
ANNEXON, INC.

ARTICLE I
OFFICES

1.1 **Registered Office**. The registered office shall be in the City of Dover, County of Kent, State of Delaware.

1.2 **Offices**. The corporation may also have offices at such other places both within and without the State of Delaware as the Board of Directors may from time to time determine or the business of the corporation may require.

ARTICLE II
MEETINGS OF STOCKHOLDERS

2.1 **Location**. All meetings of the stockholders for the election of directors shall be held in the City of Palo Alto, State of California, at such place as may be fixed from time to time by the Board of Directors, or at such other place either within or without the State of Delaware as shall be designated from time to time by the Board of Directors and stated in the notice of the meeting; provided, however, that the Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication as authorized by Section 211 of the Delaware General Corporations Law ("DGCL"). Meetings of stockholders for any other purpose may be held at such time and place, if any, within or without the State of Delaware, as shall be stated in the notice of the meeting or in a duly executed waiver of notice thereof, or a waiver by electronic transmission by the person entitled to notice.

2.2 **Timing**. Annual meetings of stockholders, commencing with the year 2012, shall be held at such date and time as shall be designated from time to time by the Board of Directors and stated in the notice of the meeting, at which they shall elect by a plurality vote a Board of Directors, and transact such other business as may properly be brought before the meeting.

2.3 **Notice of Meeting**. Written notice of any stockholder meeting stating the place, if any, date and hour of the meeting, the means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting, shall be given to each stockholder entitled to vote at such meeting not fewer than ten (10) nor more than sixty (60) days before the date of the meeting.

2.4 **Stockholders' Records**. The officer who has charge of the stock ledger of the corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address (but not the electronic address or other electronic contact information) of each stockholder and the number of shares registered in the name of each stockholder. 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 (10) 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 principal place of business of the corporation. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. If the meeting is to be held at a place, then the list shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the 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.

2.5 **Special Meetings**. Special meetings of the stockholders, for any purpose or purposes, unless otherwise prescribed by statute or by the certificate of incorporation, may be called by the president and shall be called by the president or secretary at the request in writing of a majority of the Board of Directors, or at the request in writing of stockholders owning at least ten percent (20%) in amount of the entire capital stock of the corporation issued and outstanding and entitled to vote. Such request shall state the purpose or purposes of the proposed meeting.

2.6 **Notice of Meeting**. Written notice of a special meeting stating the place, date and hour of the meeting and the purpose or purposes for which the meeting is called, shall be given not fewer than ten (10) nor more than sixty (60) days before the date of the meeting, to each stockholder entitled to vote at such meeting. The means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting shall also be provided in the notice.

2.7 **Business Transacted at Special Meeting**. Business transacted at any special meeting of stockholders shall be limited to the purposes stated in the notice.

2.8 **Quorum; Meeting Adjournment; Presence by Remote Means**.

(a) *Quorum; Meeting Adjournment.* The holders of a majority of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stockholders for the transaction of business except as otherwise provided by statute or by the certificate of incorporation. If, however, such quorum shall not be present or represented at any meeting of the stockholders, the stockholders entitled to vote thereat, present in person or represented by proxy, shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present or represented. At such adjourned meeting at which a quorum shall be present or represented, any business may be transacted that might have been transacted at the meeting as originally notified. If the adjournment is for more than thirty (30) days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

(b) *Presence by Remote Means*. If authorized by the Board of Directors in its sole discretion, and subject to such guidelines and procedures as the Board of Directors may adopt, stockholders and proxyholders not physically present at a meeting of stockholders may, by means of remote communication:

(1) participate in a meeting of stockholders; and

(2) be deemed present in person and vote at a meeting of stockholders whether such meeting is to be held at a designated place or solely by means of remote communication, provided that (i) 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 proxyholder, (ii) the corporation shall implement reasonable measures to provide such stockholders and proxyholders 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 (iii) if any stockholder or proxyholder 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.

2.9 **Voting Thresholds**. When a quorum is present at any meeting, the vote of the holders of a majority of the stock having voting power present in person or represented by proxy shall decide any question brought before such meeting, unless the question is one upon which by express provision of the statutes or of the certificate of incorporation, a different vote is required, in which case such express provision shall govern and control the decision of such question.

2.10 **Number of Votes Per Share**. Unless otherwise provided in the certificate of incorporation, each stockholder shall at every meeting of the stockholders be entitled to one vote by such stockholder or by proxy for each share of the capital stock having voting power held by such stockholder, but no proxy shall be voted on after three years from its date, unless the proxy provides for a longer period.

2.11 **Action by Written Consent of Stockholders; Electronic Consent; Notice of Action**.

(a) *Action by Written Consent of Stockholders*. Unless otherwise provided by the certificate of incorporation, any action required or permitted 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 in writing setting forth the action so taken, is signed in a manner permitted by law by the holders of outstanding stock having not less than the 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. Written stockholder consents shall bear the date of signature of each stockholder who signs the consent in the manner permitted by law and shall be, delivered to the corporation as provided in subsection (b) below. No written consent shall be effective to take the action set forth therein unless, within sixty (60) days of the earliest dated consent delivered to the corporation in the manner provided above, written consents signed by a sufficient number of stockholders to take the action set forth therein are delivered to the corporation in the manner provided above.

(b) *Electronic Consent*. A telegram, cablegram or other electronic, transmission consenting to an action to be taken and transmitted by a stockholder or proxyholder, or a person or persons authorized to act for a stockholder or proxyholder, shall be deemed to be written, signed and dated for the purposes of this section, provided that any such telegram, cablegram or other electronic transmission sets forth or is delivered with information from which the corporation can determine (1) that the telegram, cablegram or other electronic transmission was transmitted by the stockholder or proxyholder or by a person or persons authorized to act for the stockholder or proxyholder and (2) the date on which such stockholder or proxyholder or authorized person or persons transmitted such telegram, cablegram or electronic transmission. The date on which such telegram, cablegram or electronic transmission is transmitted shall be deemed to be the date on which such consent was signed. No consent given by telegram, cablegram or other electronic transmission shall be deemed to have been delivered until such consent is reproduced in paper form and until such paper form is delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation's registered office shall be made by hand or by certified or registered mail, return receipt requested. Notwithstanding the foregoing limitations on delivery, consents given by telegram, cablegram or other electronic transmission may be otherwise delivered to the principal place of business of the corporation or to an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded if to the extent and in the manner provided by resolution of the Board of Directors of the corporation.

(c) *Notice of Action*. Prompt notice of any action taken pursuant to this Section 2.11 shall be provided to the stockholders in accordance with Section 228(e) of the DGCL.

ARTICLE III
DIRECTORS

3.1 **Authorized Directors**. The number of directors that shall constitute the whole Board of Directors shall be determined by resolution of the Board of Directors or by the stockholders at the annual meeting of the stockholders, except as provided in Section 3.2 of this Article, and each director elected shall hold office until his successor is elected and qualified. Directors need not be stockholders.

3.2 **Vacancies**. Unless otherwise provided in the corporation's certificate of incorporation, as it may be amended, vacancies and newly created directorships resulting from any increase in the authorized number of directors may be filled by a majority of the directors then in office, though less than a quorum, or by a sole remaining director, and the directors so chosen shall hold office until the next annual election and until their successors are duly elected and shall qualify, unless sooner displaced. If there are no directors in office, then an election of directors may be held in the manner provided by statute. If, at the time of filling any vacancy or any newly created directorship, the directors then in office shall constitute less than a majority of the whole Board of Directors (as constituted immediately prior to any such increase), the Court of Chancery may, upon application of any stockholder or stockholders holding at least ten percent (10%) of the total number of the shares 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.

3.3 **Board Authority**. The business of the corporation shall be managed by or under the direction of its Board of Directors, which may exercise all such powers of the corporation and do all such lawful acts and things as are not by statute or by the certificate of incorporation or by these bylaws directed or required to be exercised or done by the stockholders.

3.4 **Location of Meetings**. The Board of Directors of the corporation may hold meetings, both regular and special, either within or without the State of Delaware.

3.5 **First Meeting**. The first meeting of each newly elected Board of Directors shall be held at such time and place as shall be fixed by the vote of the stockholders at the annual meeting and no notice of such meeting shall be necessary to the newly elected directors in order to legally constitute the meeting, provided a quorum shall be present. In the event of the failure of the stockholders to fix the time or place of such first meeting of the newly elected Board of Directors, or in the event such meeting is not held at the time and place so fixed by the stockholders, the meeting may be held at such time and place as shall be specified in a notice given as hereinafter provided for special meetings of the Board of Directors, or as shall be specified in a written waiver signed by all of the directors.

3.6 **Regular Meetings**. Regular meetings of the Board of Directors may be held without notice at such time and at such place as shall from time to time be determined by the Board of Directors.

3.7 **Special Meetings**. Special meetings of the Board of Directors may be called by the president upon notice to each director; special meetings shall be called by the president or secretary in like manner and on like notice on the written request of two (2) directors unless the Board of Directors consists of only one director, in which case special meetings shall be called by the president or secretary in like manner and on like notice on the written request of the sole director. Notice of any special meeting shall be given to each director at his business or residence in writing, or by telegram, facsimile transmission, telephone communication or electronic transmission (provided, with respect to electronic transmission, that the director has consented to receive the form of transmission at the address to which it is directed). If mailed, such notice shall be deemed adequately delivered when deposited in the United States mail so addressed, with postage thereon prepaid, at least five (5) days before such meeting. If by telegram, such notice shall be deemed adequately delivered when the telegram is delivered to the telegraph company at least twenty-four (24) hours before such meeting. If by facsimile transmission or other electronic transmission, such notice shall be transmitted at least twenty-four (24) hours before such meeting. If by telephone, the notice shall be given at least twelve (12) hours prior to the time set for the meeting. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board of Directors need be specified in the notice of such meeting, except for amendments to these Bylaws as provided under Section 8.1 of Article VIII hereof. A meeting may be held at any time without notice if all the directors are present (except as otherwise provided by law) or if those not present waive notice of the meeting in writing, either before or after such meeting.

3.8 **Quorum**. At all meetings of the Board of Directors a majority of the directors shall constitute a quorum for the transaction of business and any act of a majority of the directors present at any meeting at which there is a quorum shall be an act of the Board of Directors, except as may be otherwise specifically provided by statute or by the certificate of incorporation. If a quorum is not present at any meeting of the Board of Directors, the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present.

3.9 **Action 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 of Directors or of any committee thereof may be taken without a meeting if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission, and the writing, writings, electronic transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee.

3.10 **Telephonic Meetings**. Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the Board of Directors or any committee designated by the Board of Directors may participate in a meeting of the Board of Directors or any committee, by means of conference telephone or other means of communication by which all persons participating in the meeting can hear each other, and such participation shall constitute presence in person at the meeting.

3.11 **Committees**. The Board of Directors may designate one or more committees, each committee to consist of one or more of the directors of the corporation. The Board of Directors 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 he or she or they constitute a quorum, may unanimously appoint another member of the Board of Directors 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 of Directors, shall have and may exercise all the powers and authority of the Board of Directors 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, but no such committee shall have the power or authority in reference to the following matters: (i) approving or adopting, or recommending to the stockholders, any action or matter expressly required by the DGCL to be submitted to stockholders for approval or (ii) adopting, amending or repealing any provision of these bylaws.

3.12 **Minutes of Meetings**. Each committee shall keep regular minutes of its meetings and report the same to the Board of Directors when required.

3.13 **Compensation of Directors**. Unless otherwise restricted by the certificate of incorporation or these bylaws, the Board of Directors shall have the authority to fix the compensation of directors. The directors may be paid their expenses, if any, of attendance at each meeting of the Board of Directors and may be paid a fixed sum for attendance at each meeting of the Board of Directors or a stated salary as director. No such payment shall preclude any director from serving the corporation in any other capacity and receiving compensation therefor. Members of special or standing committees may be allowed like compensation for attending committee meetings.

3.14 **Removal of Directors**. Unless otherwise provided by the certificate of incorporation or these bylaws, any director or the entire Board of Directors may be removed, with or without cause, by the holders of a majority of shares entitled to vote at an election of directors.

ARTICLE IV
NOTICES

4.1 **Notice**. Unless otherwise provided in these bylaws, whenever, under the provisions of the statutes or of the certificate of incorporation or of these bylaws, notice is required to be given to any director or stockholder, it shall not be construed to mean personal notice, but such notice may be given in writing, by mail, addressed to such director or stockholder, at his address as it appears on the records of the corporation, with postage thereon prepaid, and such notice shall be deemed to be given at the time when the same shall be deposited in the United States mail. Notice to directors may also be given by telegram.

4.2 **Waiver of Notice**. Whenever any notice is required to be given under the provisions of the statutes or of the certificate of incorporation or of these bylaws, a waiver thereof in writing, signed by the person or persons entitled to said notice, whether before or after the time stated therein, shall be deemed equivalent thereto.

4.3 **Electronic Notice**.

(a) *Electronic Transmission*. Without limiting the manner by which notice otherwise may be given effectively to stockholders and directors, any notice to stockholders or directors given by the corporation 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 or director to whom the notice is given. Any such consent shall be revocable by the stockholder or director by written notice to the corporation. Any such consent shall be deemed revoked if (1) the corporation is unable to deliver by electronic transmission two consecutive notices given by the corporation in accordance with such consent and (2) such inability becomes known to the secretary or an assistant secretary of the corporation or to the transfer agent, or other person responsible for the giving of notice; provided, however, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

(b) *Effective Date of Notice*. Notice given pursuant to subsection (a) of this section shall be deemed given: (1) if by facsimile telecommunication, when directed to a number at which the stockholder or director has consented to receive notice; (2) if by electronic mail, when directed to an electronic mail address at which the stockholder or director has consented to receive notice; (3) if by a posting on an electronic network together with separate notice to the stockholder or director of such specific posting, upon the later of (i) such posting and (ii) the giving of such separate notice; and (4) if by any other form of electronic transmission, when directed to the stockholder or director. 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 a form of electronic transmission shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

(c) *Form of Electronic Transmission*. For purposes of these bylaws, "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.

ARTICLE V
OFFICERS

5.1 **Required and Permitted Officers**. The officers of the corporation shall be chosen by the Board of Directors and shall be a president, treasurer and a secretary. The Board of Directors may elect from among its members a Chairman of the Board and a Vice-Chairman of the Board. The Board of Directors may also choose one or more vice-presidents, assistant secretaries and assistant treasurers. Any number of offices may be held by the same person, unless the certificate of incorporation or these bylaws otherwise provide.

5.2 **Appointment of Required Officers**. The Board of Directors at its first meeting after each annual meeting of stockholders shall choose a president, a treasurer, and a secretary and may choose vice-presidents.

5.3 **Appointment of Permitted Officers**. The Board of Directors may appoint such other officers and agents as it shall deem necessary who shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the Board of Directors.

5.4 **Officer Compensation**. The salaries of all officers and agents of the corporation shall be fixed by the Board of Directors.

5.5 **Term of Office; Vacancies**. The officers of the corporation shall hold office until their successors are chosen and qualify. Any officer elected or appointed by the Board of Directors may be removed at any time by the affirmative vote of a majority of the Board of Directors. Any vacancy occurring in any office of the corporation shall be filled by the Board of Directors.

THE CHAIRMAN OF THE BOARD

5.6 **Chairman Presides**. The Chairman of the Board, if any, shall preside at all meetings of the Board of Directors and of the stockholders at which he or she shall be present. He or she shall have and may exercise such powers as are, from time to time, assigned to him by the Board of Directors and as may be provided by law.

5.7 **Absence of Chairman**. In the absence of the Chairman of the Board, the Vice-Chairman of the Board, if any, shall preside at all meetings of the Board of Directors and of the stockholders at which he or she shall be present. He or she shall have and may exercise such powers as are, from time to time, assigned to him by the Board of Directors and as may be provided by law.

THE PRESIDENT AND VICE-PRESIDENTS

5.8 **Powers of President**. The president shall be the chief executive officer of the corporation; in the absence of the Chairman and Vice-Chairman of the Board he or she shall preside at all meetings of the stockholders and the Board of Directors; he or she shall have general and active management of the business of the corporation and shall see that all orders and resolutions of the Board of Directors are carried into effect.

5.9 **President's Signature Authority**. The president shall execute bonds, mortgages and other contracts requiring a seal, under the seal of the corporation, except where required or permitted by law to be otherwise signed and executed and except where the signing and execution thereof shall be expressly delegated by the Board of Directors to some other officer or agent of the corporation.

5.10 **Absence of President**. In the absence of the president or in the event of his inability or refusal to act, the vice-president, if any, (or in the event there be more than one vice-president, the vice-presidents in the order designated by the directors, or in the absence of any designation, then in the order of their election) shall perform the duties of the president, and when so acting, shall have all the powers of and be subject to all the restrictions upon the president. The vice-presidents shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe.

THE SECRETARY AND ASSISTANT SECRETARY

5.11 **Duties of Secretary**. The secretary shall attend all meetings of the Board of Directors and all meetings of the stockholders and record all the proceedings of the meetings of the corporation and of the Board of Directors in a book to be kept for that purpose and shall perform like duties for the standing committees when required. He or she shall give, or cause to be given, notice of all meetings of the stockholders and special meetings of the Board of Directors, and shall perform such other duties as may be prescribed by the Board of Directors or president, under whose supervision he or she shall be. He or she shall have custody of the corporate seal of the corporation and he or she, or an assistant secretary, shall have authority to affix the same to any instrument requiring it and when so affixed, it may be attested by his signature or by the signature of such assistant secretary. The Board of Directors may give general authority to any other officer to affix the seal of the corporation and to attest the affixing by his signature.

5.12 **Duties of Assistant Secretary**. The assistant secretary, or if there be more than one, the assistant secretaries in the order determined by the Board of Directors (or if there be no such determination, then in the order of their election) shall, in the absence of the secretary or in the event of his inability or refusal to act, perform the duties and exercise the powers of the secretary and shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe.

THE TREASURER AND ASSISTANT TREASURERS

5.13 **Duties of Treasurer**. The treasurer shall have the custody of the corporate funds and securities and shall keep full and accurate accounts of receipts and disbursements in books belonging to the corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the corporation in such depositories as may be designated by the Board of Directors.

5.14 **Disbursements and Financial Reports**. He or she shall disburse the funds of the corporation as may be ordered by the Board of Directors, taking proper vouchers for such disbursements, and shall render to the president and the Board of Directors, at its regular meetings or when the Board of Directors so requires, an account of all his transactions as treasurer and of the financial condition of the corporation.

5.15 **Treasurer's Bond**. If required by the Board of Directors, the treasurer shall give the corporation a bond (which shall be renewed every six years) in such sum and with such surety or sureties as shall be satisfactory to the Board of Directors for the faithful performance of the duties of his office and for the restoration to the corporation, in case of his death, resignation, retirement or removal from office, of all books, papers, vouchers, money and other property of whatever kind in his possession or under his control belonging to the corporation.

5.16 **Duties of Assistant Treasurer**. The assistant treasurer, or if there shall be more than one, the assistant treasurers in the order determined by the Board of Directors (or if there be no such determination, then in the order of their election) shall, in the absence of the treasurer or in the event of the treasurer's inability or refusal to act, perform the duties and exercise the powers of the treasurer and shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe.

ARTICLE VI
CERTIFICATE OF STOCK

6.1 **Stock Certificates**. Every holder of stock in the corporation shall be entitled to have a certificate, signed by or in the name of the corporation by, the Chairman or Vice-Chairman of the Board of Directors, or the president or a vice-president and the treasurer or an assistant treasurer, or the secretary or an assistant secretary of the corporation, certifying the number of shares owned by him in the corporation.

Certificates may be issued for partly paid shares and in such case upon the face or back of the certificates issued to represent any such partly paid shares, the total amount of the consideration to be paid therefor, and the amount paid thereon shall be specified.

If the corporation shall be authorized to issue more than one class of stock or more than one series of any class, the powers, designations, preferences and relative participating, optional or other special rights of each class of stock or series thereof and the qualification, 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 which the corporation 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 which the corporation shall issue to represent such class or series of stock, a statement that the corporation 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.

6.2 **Facsimile Signatures**. Any or all of the signatures on the certificate may be facsimile. In the event that any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, the certificate may be issued by the corporation with the same effect as if such officer, transfer agent or registrar were still acting as such at the date of issue.

6.3 **Lost Certificates**. The Board of Directors may direct a new certificate or certificates to be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen or destroyed upon the making of an affidavit of that fact by the person claiming the certificate to be lost, stolen or destroyed. When authorizing such issuance of a new certificate or certificates, the Board of Directors may, in its discretion and as a condition precedent to the issuance, require the owner of such lost, stolen or destroyed certificate or certificates, or his legal representative, to advertise the same in such manner as it shall require and/or to give the corporation a bond in such sum as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen or destroyed.

6.4 **Transfer of Stock**. Upon surrender to the corporation or the transfer agent of the corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer, it shall be the duty of the corporation to issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon its books.

6.5 **Fixing a Record Date**. In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or 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 of Directors may fix a record date which shall not be more than sixty (60) nor less than ten (10) days before the date of such meeting, nor more than sixty (60) days prior to any other action. 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 of Directors may fix a new record date for the adjourned meeting.

6.6 **Registered Stockholders**. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, to vote as such owner, to hold liable for calls and assessments a person registered on its books as the owner of shares and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE VII
GENERAL PROVISIONS

7.1 **Dividends**. Dividends upon the capital stock of the corporation, if any, subject to the provisions of the certificate of incorporation, may be declared by the Board of Directors at any regular or special meeting, pursuant to law. Dividends may be paid in cash, in property or in shares of the capital stock, subject to the provisions of the certificate of incorporation.

7.2 **Reserve for Dividends**. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the directors from time to time, in their sole discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purposes as the directors think conducive to the interests of the corporation, and the directors may modify or abolish any such reserve in the manner in which it was created.

7.3 **Checks**. All checks or demands for money and notes of the corporation shall be signed by such officer or officers or such other person or persons as the Board of Directors may from time to time designate.

7.4 **Fiscal Year**. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.

7.5 **Corporate Seal**. The Board of Directors may adopt a corporate seal having inscribed thereon the name of the corporation, the year of its organization and the words “Corporate Seal, Delaware.” The seal may be used by causing it or a facsimile thereof to be impressed or affixed or otherwise reproduced.

7.6 **Indemnification**. The corporation shall, to the fullest extent authorized under the laws of the State of Delaware, as those laws may be amended and supplemented from time to time, indemnify any director made, or threatened to be made, a party to an action or proceeding, whether criminal, civil, administrative or investigative, by reason of being a director of the corporation or a predecessor corporation or a director or officer of another corporation, if such person served in such position at the request of the corporation; provided, however, that the corporation shall indemnify any such director or officer in connection with a proceeding initiated by such director or officer only if such proceeding was authorized by the Board of Directors of the corporation. The indemnification provided for in this Section 7.6 shall: (i) not be deemed exclusive of any other rights to which those indemnified may be entitled under these bylaws, agreement or vote of stockholders or disinterested directors or otherwise, both as to action in their official capacities and as to action in another capacity while holding such office, (ii) continue as to a person who has ceased to be a director, and (iii) inure to the benefit of the heirs, executors and administrators of a person who has ceased to be a director. The corporation’s obligation to provide indemnification under this Section 7.6 shall be offset to the extent of any other source of indemnification or any otherwise applicable insurance coverage under a policy maintained by the corporation or any other person.

Expenses incurred by a director of the corporation in defending a civil or criminal action, suit or proceeding by reason of the fact that he or she is or was a director of the corporation (or was serving at the corporation's request as a director or officer of another corporation) shall be paid by the corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director to repay such amount if it shall ultimately be determined that he or she is not entitled to be indemnified by the corporation as authorized by relevant sections of the DGCL. Notwithstanding the foregoing, the corporation shall not be required to advance such expenses to an agent who is a party to an action, suit or proceeding brought by the corporation and approved by a majority of the Board of Directors of the corporation that alleges willful misappropriation of corporate assets by such agent, disclosure of confidential information in violation of such agent's fiduciary or contractual obligations to the corporation or any other willful and deliberate breach in bad faith of such agent's duty to the corporation or its stockholders.

The foregoing provisions of this Section 7.6 shall be deemed to be a contract between the corporation and each director who serves in such capacity at any time while this bylaw is in effect, and any repeal or modification thereof shall not affect any rights or obligations then existing with respect to any state of facts then or theretofore existing or any action, suit or proceeding theretofore or thereafter brought based in whole or in part upon any such state of facts.

The Board of Directors in its sole discretion shall have power on behalf of the corporation to indemnify any person, other than a director, made a party to any action, suit or proceeding by reason of the fact that he or she, or his or her testator or intestate, is or was an officer or employee of the corporation.

To assure indemnification under this Section 7.6 of all directors, officers and employees who are determined by the corporation or otherwise to be or to have been "fiduciaries" of any employee benefit plan of the corporation that may exist from time to time, Section 145 of the DGCL shall, for the purposes of this Section 7.6, be interpreted as follows: an "other enterprise" shall be deemed to include such an employee benefit plan, including without limitation, any plan of the corporation that is governed by the Act of Congress entitled "Employee Retirement Income Security Act of 1974," as amended from time to time; the corporation shall be deemed to have requested a person to serve the corporation for purposes of Section 145 of the DGCL, as administrator of an employee benefit plan where the performance by such person of his duties to the corporation also imposes duties on, or otherwise involves services by, such person to the plan or participants or beneficiaries of the plan; excise taxes assessed on a person with respect to an employee benefit plan pursuant to such Act of Congress shall be deemed "fines."

CERTIFICATE OF INCORPORATION GOVERNS

7.7 **Conflicts with Certificate of Incorporation**. In the event of any conflict between the provisions of the corporation's certificate of incorporation and these bylaws, the provisions of the certificate of incorporation shall govern.

ARTICLE VIII
AMENDMENTS

8.1 These bylaws may be altered, amended or repealed, or new bylaws may be adopted by the stockholders or by the Board of Directors, when such power is conferred upon the Board of Directors by the certificate of incorporation at any regular meeting of the stockholders or of the Board of Directors or at any special meeting of the stockholders or of the Board of Directors if notice of such alteration, amendment, repeal or adoption of new bylaws be contained in the notice of such special meeting. If the power to adopt, amend or repeal bylaws is conferred upon the Board of Directors by the certificate of incorporation, it shall not divest or limit the power of the stockholders to adopt, amend or repeal bylaws.

ARTICLE IX
LOANS TO OFFICERS

9.1 The corporation may lend money to, or guarantee any obligation of or otherwise assist any officer or other employee of the corporation or of its subsidiaries, including any officer or employee who is a director of the corporation or its subsidiaries, whenever, in the judgment of the Board of Directors, such loan, guarantee or assistance may reasonably be expected to benefit the corporation. The loan, guarantee or other assistance may be with or without interest and may be unsecured or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing in these bylaws shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute.

ARTICLE X
RECORDS AND REPORTS

10.1 The application and requirements of Section 1501 of the California General Corporation Law are hereby expressly waived to the fullest extent permitted thereunder.

Exhibit 10.1

ANNEXON, INC.

AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT

December 4, 2018

TABLE OF CONTENTS

ANNEXON, INC.
AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT

This Amended and Restated Investors' Rights Agreement (this "***Agreement***") is dated as of December 4, 2018, and is between Annexon, Inc., a Delaware corporation (the "***Company***"), and the persons and entities listed on Exhibit A (each, an "***Investor***" and collectively, the "***Investors***").

RECITALS

Certain of the Investors (the "***Existing Investors***") hold shares of the Company's Series A Preferred Stock, Series A-1 Preferred Stock, Series B Preferred Stock and/or shares of Common Stock issued upon conversion thereof and possess registration rights, information rights, rights of first offer, and other rights pursuant to an Amended and Restated Investors' Rights Agreement dated as of June 6, 2016 between the Company and such Investors (the "***Prior Agreement***"); and

The Existing Investors are holders of greater than 60% of the Registrable Securities (as defined in the Prior Agreement), and desire to amend and restate the Prior Agreement in its entirety and to accept the rights created pursuant to this Agreement in lieu of the rights granted to them under the Prior Agreement; and

Certain of the Investors are parties to that certain Series C Preferred Stock Purchase Agreement of even date herewith (the "***Series C Investors***") (the "***Purchase Agreement***"), under which certain of the Company's and such Investors' obligations are conditioned upon the execution and delivery of this Agreement by such Investors, Existing Investors holding a majority of the Registrable Securities (as defined in the Prior Agreement), and the Company; and

The undersigned Existing Investors hereby agree that the Prior Agreement shall be amended and restated, and the parties to this Agreement further agree as follows:

SECTION 1

DEFINITIONS

1.1 Certain Definitions As used in this Agreement, the following terms shall have the meanings set forth below:

(a) "***Affiliate***" means, with respect to any specified person, any other person who or which, directly or indirectly, controls, is controlled by or is under common control with such specified person, including, without limitation any partner, member, officer, director, manager or employee of such person and any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or is under common investment management with, such person. Notwithstanding the foregoing, the Company and the parties hereto agree that (i) the Affiliates of F-Prime Inc. shall include all members of the Beacon Bioventures Group and (ii) the Affiliates of the Satter Investors shall include each other Satter Investor and any trust or other entity for which Muneer A. Satter serves as manager, trustee or investment advisor. For purposes of this Agreement, "***Satter Investors***" means the Muneer A. Satter Revocable Trust, The Satter Foundation, SIM—SCT Investment Holdings, LLC, SIM – SFT Investment Holdings, LLC, SIM—KHH Investment Holdings, LLC, SIM—ACWIT Investment Holdings, LLC, SIM—RSFIT Investment Holdings, LLC, SIM—RSIT Investment Holdings, LLC, Satter Medical Technology Partners, L.P. and any subsequent investor or transferee who becomes a party to this Agreement as an Investor and is designated as a Satter Investor by the Satter Investors holding a majority of the shares of

Common Stock (assuming conversion of all shares of Series A-1 Preferred Stock) held by all Satter Investors. For purposes of this Agreement, "***Beacon Bioventures Group***" means: each of FMR LLC and its subsidiaries and affiliates; FIL Limited and its subsidiaries and affiliates; Fidelity International Ventures Limited; InfoTech Fund I LLC; InfoTech Fund II LLC; Impresa Fund I LLC; Impresa Fund II LLC; Impresa Fund III Limited Partnership; Impresa Capital LLC; Fidelity Ventures II Limited Partnership; Fidelity Ventures Principals II LLC; Amista Ventures III Limited Partnership; Amista Ventures Principals III Limited Partnership; Agilus Ventures IV Limited Partnership; Agilus Ventures Principals IV Limited Partnership; Agilus Ventures IV-E Limited Partnership; Agilus Ventures Principals IV-E Limited Partnership; Alimont Ventures V Limited Partnership; Beacon Bioventures Limited Partnership; Beacon Bioventures Fund II Limited Partnership; Devonshire Equity Partners II Fund A Limited Partnership; Fidelity Asia Ventures Fund L.P.; Asia Ventures II L.P., FIL India Ventures L.P.; Europe Ventures L.P.; and any other limited liability company or limited partnership owned or controlled by members of FMR LLC; and shall also include any charitable organizations.

(b) "***Bad Actor Disqualification***" means any "bad actor" disqualification described in Rule 506(d)(1)(i) through (viii) under the Securities Act.

(c) "***Board of Directors***" means the board of directors of the Company.

(d) "***Commission***" means the Securities and Exchange Commission or any other federal agency at the time administering the Securities Act.

(e) "***Common Stock***" means the Common Stock of the Company.

(f) "***Conversion Stock***" means shares of Common Stock issued upon conversion of the Preferred Stock.

(g) "***Exchange Act***" means the Securities Exchange Act of 1934, as amended, or any similar successor federal statute and the rules and regulations thereunder, all as the same shall be in effect from time to time.

(h) "***Holder***" means any Investor who holds Registrable Securities and any holder of Registrable Securities to whom the registration rights conferred by this Agreement have been duly and validly transferred in accordance with Section 2.12 of this Agreement.

(i) "***Indemnified Party***" shall have the meaning set forth in Section 2.6(c).

(j) "***Indemnifying Party***" shall have the meaning set forth in Section 2.6(c).

(k) "***Initial Public Offering***" means the closing of the Company's first firm commitment underwritten public offering of the Company's Common Stock registered under the Securities Act.

(l) "***Initiating Holders***" means any Holder or Holders who in the aggregate hold at least a Preferred Majority.

(m) "***Major Holder***" shall have the meaning set forth in Section 4.1(a).

(n) "***Major Information Holder***" shall have the meaning set forth in Section 3.1(a).

(o) "***New Investor***" shall mean a holder of Series C Preferred Stock that is not a holder of, or an Affiliate of a current holder of, the Company's Series A Preferred Stock, Series A-1 Preferred Stock or Series B Preferred Stock.

(p) "***New Securities***" shall have the meaning set forth in Section 4.1(a).

(q) "***Other Selling Stockholders***" means persons other than Holders who, by virtue of agreements with the Company, are entitled to include their Other Shares in certain registrations hereunder.

(r) "***Other Shares***" means shares of Common Stock, other than Registrable Securities (as defined below), with respect to which registration rights have been granted.

(s) "***Person***" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

(t) "***Preferred Majority***" means holders of at least sixty percent (60%) of the outstanding shares of the Preferred Stock on an as-converted basis, including (A) prior to the Second Closing (as defined in the Purchase Agreement), one or more New Investors holding at least 3,700,000 shares of Series C Preferred Stock (as adjusted for stock splits, recapitalizations and similar events) in the aggregate or (B) following the Second Closing, one or more New Investors holding at least 7,400,000 shares of Series C Preferred Stock (as adjusted for stock splits, recapitalizations and similar events) in the aggregate (provided, that if either of Bain Capital Life Sciences Fund, LP or Citadel Multi-Strategy Equities Master Fund Ltd. is a Defaulting Investor (as defined in the Purchase Agreement), then such required share threshold shall remain at 3,700,000 shares of Series C Preferred Stock (as adjusted for stock splits, recapitalizations and similar events) or such lesser number such that at least one of the two New Investors holding the greatest number of outstanding shares of Series C Preferred Stock is required).

(u) "***Preferred Stock***" means, collectively, the Series A Preferred Stock, Series A-1 Preferred Stock, the Series B Preferred Stock and the Series C Preferred Stock.

(v) "***Purchase Agreement***" shall have the meaning set forth in the Recitals.

(w) "***Registrable Securities***" means (i) shares of Common Stock issued or issuable pursuant to the conversion of the Shares and (ii) any Common Stock issued as a dividend or other distribution with respect to or in exchange for or in replacement of the shares referenced in (i) above; *provided*, *however*, that Registrable Securities shall not include any shares of Common Stock described in clause (i) or (ii) above which have previously been registered or which have been sold to the public either pursuant to a registration statement or Rule 144, or which have been sold in a private transaction in which the transferor's rights under this Agreement are not validly assigned in accordance with this Agreement.

(x) The terms "***register***," "***registered***" and "***registration***" shall refer to a registration effected by preparing and filing a registration statement in compliance with the Securities Act and applicable rules and regulations thereunder, and the declaration or ordering of the effectiveness of such registration statement.

(y) "***Registration Expenses***" means all expenses incurred in effecting any registration pursuant to this Agreement, including, without limitation, all registration, qualification, and filing fees, printing expenses, escrow fees, fees and disbursements of counsel for the Company, fees and disbursements of one special counsel for any Holders and Other Selling Stockholders including Shares and Other Shares in a registration statement (with such amount not to exceed $50,000 in the aggregate), and one special counsel for the Holders with respect to corporate governance matters regardless of their including Shares or Other Shares

in a registration statement (with such amount not to exceed $50,000 in the aggregate), blue sky fees and expenses, and expenses of any regular or special audits incident to or required by any such registration, but shall not include Selling Expenses and the compensation of regular employees of the Company, which shall be paid in any event by the Company.

(z) "***Restricted Securities***" means any Registrable Securities required to bear the first legend set forth in Section 2.8(c).

(aa) "***Rule 144***" means Rule 144 as promulgated by the Commission under the Securities Act, as such Rule may be amended from time to time, or any similar successor rule that may be promulgated by the Commission.

(bb) "***Rule 145***" means Rule 145 as promulgated by the Commission under the Securities Act, as such Rule may be amended from time to time, or any similar successor rule that may be promulgated by the Commission

(cc) "***Rule 415***" means Rule 415 as promulgated by the Commission under the Securities Act, as such Rule may be amended from time to time, or any similar successor rule that may be promulgated by the Commission.

(dd) "***Securities Act***" means the Securities Act of 1933, as amended, or any similar successor federal statute and the rules and regulations thereunder, all as the same shall be in effect from time to time.

(ee) "***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 or Other Selling Stockholders (other than the fees and disbursements of counsel to the Holders and Other Selling Stockholders included in Registration Expenses).

(ff) "***Series A Preferred Stock***" means the shares of the Company's Series A Preferred Stock, par value $0.001 per share.

(gg) "***Series A-1 Preferred Stock***" means the shares of the Company's Series A-1 Preferred Stock, par value $0.001 per share.

(hh) "***Series B Investor***" means a Holder of Series B Preferred Stock.

(ii) "***Series B Preferred Stock***" means the shares of the Company's Series B Preferred Stock, par value $0.001 per share.

(jj) "***Series C Investor***" means a Holder of Series C Preferred Stock.

(kk) "***Series C Preferred Stock***" means the shares of the Company's Series C Preferred Stock, par value $0.001 per share.

(ll) "***Shares***" means shares of Preferred Stock.

(mm) "***Withdrawn Registration***" means a forfeited demand registration under Section 2.1 in accordance with the terms and conditions of Section 2.4.

SECTION 2

REGISTRATION RIGHTS

2.1 Requested Registration

(a) ***Request for Registration.*** Subject to the conditions set forth in this Section 2.1, if the Company shall receive from Initiating Holders a written request signed by such Initiating Holders that the Company effect any registration with respect to all or a part of the Registrable Securities (such request shall state the number of shares of Registrable Securities to be disposed of by such Initiating Holders), the Company will:

(i) promptly give written notice of the proposed registration to all other Holders; and

(ii) as soon as practicable, file and use its commercially reasonable efforts to effect such registration (including, without limitation, filing post-effective amendments, appropriate qualifications under applicable blue sky or other state securities laws, and appropriate compliance with the Securities Act) and to permit or facilitate the sale and distribution of all or such portion of such Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any Holder or Holders joining in such request as are specified in a written request received by the Company within 20 days after such written notice from the Company is mailed or delivered.

(b) ***Limitations on Requested Registration.*** The Company shall not be obligated to effect any such registration pursuant to this Section 2.1:

(i) Prior to the earlier of (A) the five-year anniversary of the date of this Agreement or (B) 180 days following the effective date of the first registration statement filed by the Company covering an underwritten offering of any of its securities to the general public (or the subsequent date on which all market stand-off agreements applicable to the offering have terminated);

(ii) If the Initiating Holders, together with the holders of any other securities of the Company entitled to inclusion in such registration statement, propose to sell Registrable Securities for aggregate proceeds (after deduction for underwriter's discounts and expenses related to the issuance) of less than $5,000,000;

(iii) In any particular jurisdiction in which the Company would be required to execute a general consent to service of process in effecting such registration, qualification, or compliance, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(iv) After the Company has initiated two such registrations pursuant to this Section 2.1;

(v) During the period starting with the date 60 days prior to the Company's good faith estimate of the date of filing of, and ending on a date (x) with respect to the Company's Initial Public Offering, 180 days after the effective date of, a Company-initiated registration (or ending on the subsequent date on which all market stand-off agreements applicable to the offering have terminated), and (y) with respect to any Company-initiated registration of its Common Stock following its Initial Public Offering, 90 days after the effective date of such Company-initiated registration; *provided* that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective;

(vi) If the Initiating Holders propose to dispose of shares of Registrable Securities that may be registered on Form S-3 pursuant to a request made under Section 2.3;

(vii) If the Initiating Holders do not request that such offering be firmly underwritten by underwriters selected by the Initiating Holders (subject to the consent of the Company which shall not be unreasonably withheld); or

(viii) If the Company and the Initiating Holders are unable to obtain the commitment of the underwriter described in clause (b)(vii) above to firmly underwrite the offer.

(c) ***Deferral.*** If (i) in the good faith judgment of the Board of Directors of the Company, the filing of a registration statement covering the Registrable Securities would be materially detrimental to the Company and the Board of Directors of the Company concludes, as a result, that it is in the best interests of the Company to defer the filing of such registration statement at such time, and (ii) the Company shall furnish to such Holders a certificate signed by the President of the Company stating that in the good faith judgment of the Board of Directors of the Company, it would be materially detrimental to the Company for such registration statement to be filed in the near future and that it is, therefore, in the best interests of the Company to defer the filing of such registration statement, then (in addition to the limitations set forth in Section 2.1(b)(v) above) the Company shall have the right to defer such filing for a period of not more than 120 days after receipt of the request of the Initiating Holders, and, *provided further*, that the Company shall not defer its obligation in this manner more than one time in any 12-month period.

(d) ***Other Shares.*** The registration statement filed pursuant to the request of the Initiating Holders may, subject to the provisions of Section 2.1(e), include Other Shares and securities of the Company being sold for the account of the Company.

(e) ***Underwriting.***

(i) The right of any Holder to include all or any portion of its Registrable Securities in a registration pursuant to this Section 2.1 shall be conditioned upon such Holder's participation in an underwriting and the inclusion of such Holder's Registrable Securities to the extent provided herein. If the Company shall request inclusion in any registration pursuant to Section 2.1 of securities being sold for its own account, or if other persons shall request inclusion in any registration pursuant to Section 2.1, the Initiating Holders shall, on behalf of all Holders, offer to include such securities in the underwriting and such offer shall be conditioned upon the participation of the Company or such other persons in such underwriting and the inclusion of the Company's and such person's other securities of the Company and their acceptance of the further applicable provisions of this Section 2 (including Section 2.10). The Company shall (together with all Holders and other persons proposing to distribute their securities through such underwriting) enter into an underwriting agreement in customary form with the representative of the underwriter or underwriters selected for such underwriting by a majority in interest of the Initiating Holders, which underwriters are reasonably acceptable to the Company.

(ii) Notwithstanding any other provision of this Section 2.1, if the underwriters advise the Initiating Holders in writing that marketing factors require a limitation on the number of shares to be underwritten, the number of Registrable Securities and Other Shares that may be so included shall be allocated as follows: (i) first, among all Holders requesting to include Registrable Securities in such registration statement based on the *pro rata* percentage of Registrable Securities held by such Holders, assuming conversion; (ii) second, to the Other Selling Stockholders; and (iii) third, to the Company, which

the Company may allocate, at its discretion, for its own account, or for the account of other holders or employees of the Company; provided that, a registration will only count against the limit set forth in Section 2.1(b)(iv) if (i) all Registrable Securities requested to be registered are registered, and (ii) it is closed, or withdrawn at the request of the Holders (other than a withdrawal by the Holders that is based upon material adverse information relating to the Company that is different from the information known or available (upon request from the Company or otherwise) to the Holders requesting registration at the time of their request for registration under this Section 2.1).

(iii) If a person who has requested inclusion in such registration as provided above does not agree to the terms of any such underwriting, such person shall be excluded therefrom by written notice from the Company, the underwriter or the Initiating Holders. The securities so excluded shall also be withdrawn from registration. Any Registrable Securities or other securities excluded or withdrawn from such underwriting shall also be withdrawn from such registration. If shares are so withdrawn from the registration and if the number of shares to be included in such registration was previously reduced as a result of marketing factors pursuant to this Section 2.1(e), then the Company shall then offer to all Holders and Other Selling Stockholders who have retained rights to include securities in the registration the right to include additional Registrable Securities or Other Shares in the registration in an aggregate amount equal to the number of shares so withdrawn, with such shares to be allocated among such Holders and Other Selling Stockholders requesting additional inclusion, as set forth above.

2.2 Company Registration

(a) ***Company Registration.*** If the Company shall determine to register any of its securities either for its own account or the account of a security holder or holders, other than a registration pursuant to Section 2.1 or 2.3, a registration relating solely to employee benefit plans, a registration relating to the offer and sale of non-convertible debt securities, a registration relating to a corporate reorganization or other Rule 145 transaction, or a registration on any registration form that does not permit secondary sales, the Company will:

(i) promptly give written notice of the proposed registration to all Holders; and

(ii) use its commercially reasonable efforts to include in such registration (and any related qualification under blue sky laws or other compliance), except as set forth in Section 2.2(b) below, and in any underwriting involved therein, all of such Registrable Securities as are specified in a written request or requests made by any Holder or Holders received by the Company within twenty (20) days after such written notice from the Company is mailed or delivered. Such written request may specify all or a part of a Holder's Registrable Securities.

(b) ***Underwriting.***

(i) If the registration of which the Company gives notice is for a registered public offering involving an underwriting, the Company shall so advise the Holders as a part of the written notice given pursuant to Section 2.2(a)(i). In such event, the right of any Holder to registration pursuant to this Section 2.2 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, the Other Selling Stockholders and other holders of securities of the Company with registration rights to participate therein distributing their securities through such underwriting) enter into an underwriting agreement in customary form with the representative of the underwriter or underwriters selected by the Company.

(ii) Notwithstanding any other provision of this Section 2.2, if the underwriters advise the Company in writing that marketing factors require a limitation on the number of shares to be underwritten, the underwriters may (subject to the limitations set forth below) limit the number of Registrable Securities to be included in, the registration and underwriting. The Company shall so advise all holders of securities requesting registration, and the number of shares of securities that are entitled to be included in the registration and underwriting shall be allocated, as follows: (i) first, to the Company for securities being sold for its own account, (ii) second, to the Holders requesting to include Registrable Securities in such registration statement based on the pro rata percentage of Registrable Securities held by such Holders, assuming conversion, and (iii) third, to the Other Selling Stockholders requesting to include Other Shares in such registration statement based on the pro rata percentage of Other Shares held by such Other Selling Stockholders, assuming conversion.

(iii) Notwithstanding the foregoing, no such reduction shall reduce the number of Registrable Securities of the Holders included in such registration below 30% of the total number of securities included in such registration, unless such offering is the Company's Initial Public Offering and such registration does not include shares of any Other Selling Stockholders (excluding shares registered for the account of the Company), in which event any or all of the Registrable Securities of the Holders may be excluded.

(iv) If a person who has requested inclusion in such registration as provided above does not agree to the terms of any such underwriting, such person shall also be excluded therefrom by written notice from the Company or the underwriter. The Registrable Securities or other securities so excluded shall also be withdrawn from such registration. Any Registrable Securities or other securities excluded or withdrawn from such underwriting shall be withdrawn from such registration.

(c) ***Right to Terminate Registration.*** The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.2 prior to the effectiveness of such registration whether or not any Holder has elected to include securities in such registration.

2.3 Registration on Form S-3

(a) ***Request for Form S-3 Registration.*** After its Initial Public Offering, the Company shall use its commercially reasonable efforts to qualify for registration on Form S-3 or any comparable or successor form or forms. After the Company has qualified for the use of Form S-3, in addition to the rights contained in the foregoing provisions of this Section 2 and subject to the conditions set forth in this Section 2.3, if the Company shall receive from Holders of at least 30% of the Registrable Securities a written request that the Company effect any registration on Form S-3 or any similar short form registration statement with respect to all or part of the Registrable Securities (such request shall state the number of shares of Registrable Securities to be disposed of and the intended methods of disposition of such shares by such Holder or Holders), the Company will take all such action with respect to such Registrable Securities as required by Section 2.1(a)(i) and (ii).

(b) ***Limitations on Form S-3 Registration.*** The Company shall not be obligated to effect any such registration pursuant to this Section 2.3:

(i) In the circumstances described in either Sections 2.1(b)(iii) or 2.1(b)(v);

(ii) If the Holders, together with the holders of any other securities of the Company entitled to inclusion in such registration, propose to sell Registrable Securities and such other securities (if any) on Form S-3 at an aggregate price to the public of less than $1,000,000; or

(iii) If, in a given 12-month period, the Company has effected two such registrations in such period.

(c) ***Deferral.*** If (i) in the good faith judgment of the Board of Directors of the Company, effecting any registration on Form S-3 or any similar short form registration statement with respect to all or part of the Registrable Securities would be materially detrimental to the Company and the Board of Directors of the Company concludes, as a result, that it is in the best interests of the Company to defer the filing of such registration statement at such time, and (ii) the Company shall furnish to such Holders a certificate signed by the President of the Company stating that in the good faith judgment of the Board of Directors of the Company, it would be materially detrimental to the Company for such registration statement to be filed in the near future and that it is, therefore, in the best interests of the Company to defer the filing of such registration statement, then the Company shall have the right to defer such filing for a period of not more than 90 days after receipt of the request of the Initiating Holders, and, *provided further*, that the Company shall not defer its obligation in this manner more than one (1) time in any 12-month period and, in no event following the Company's Initial Public Offering, shall the Company's obligations to effect any registration pursuant to this Section 2.3 be deferred pursuant to Sections 2.1(b)(v) and/or 2.3(c) for more than six (6) months in any 12-month period.

(d) ***Underwriting.*** If the Holders of Registrable Securities requesting registration under this Section 2.3 intend to distribute the Registrable Securities covered by their request by means of an underwriting, the provisions of Section 2.1(e) shall apply to such registration. Notwithstanding anything contained herein to the contrary, registrations effected pursuant to this Section 2.3 shall not be counted as requests for registration or registrations effected pursuant to Section 2.1.

2.4 Expenses of Registration All Registration Expenses incurred in connection with registrations pursuant to Sections 2.1, 2.2 and 2.3 shall be borne by the Company; *provided*, *however*, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Sections 2.1 and 2.3 if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered or because a sufficient number of Holders shall have withdrawn so that the minimum offering conditions set forth in Sections 2.1 and 2.3 are no longer satisfied (in which case all participating Holders shall bear such expenses *pro rata* among each other based on the number of Registrable Securities requested to be so registered), unless the Holders holding at least a Preferred Majority agree to forfeit their right to a demand registration pursuant to Section 2.1; *provided*, *however*, in the event that a withdrawal by the Holders is based upon material adverse information relating to the Company that is different from the information known or available (upon request from the Company or otherwise) to the Holders requesting registration at the time of their request for registration under Section 2.1, such registration shall not be treated as a counted registration for purposes of Section 2.1, even though the Holders do not bear the Registration Expenses for such registration. All Selling Expenses relating to securities registered on behalf of the Holders shall be borne by the holders of securities included in such registration *pro rata* among each other on the basis of the number of Registrable Securities so registered.

2.5 Registration Procedures In the case of each registration effected by the Company pursuant to Section 2, the Company will keep each Holder advised in writing as to the initiation of each registration and as to the completion thereof. At its expense, the Company will use its commercially reasonable efforts to:

(a) Keep such registration effective for a period ending on the earlier of the date which is 120 days from the effective date of the registration statement or such time as the Holder or Holders have completed the distribution described in the registration statement relating thereto;

(b) To the extent the Company is a well-known seasoned issuer (as defined in Rule 405 under the Securities Act) (a "***WKSI***") at the time any request for registration is submitted to the Company in accordance with Section 2.3, (i) if so requested, file an automatic shelf registration statement (as defined in Rule 405 under the Securities Act) (an "***automatic shelf registration statement***") to effect such registration, and (ii) remain a WKSI (and not become an ineligible issuer (as defined in Rule 405 under the Securities Act)) during the period during which such automatic shelf registration statement is required to remain effective in accordance with this Agreement;

(c) Prepare and file with the Commission 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 provisions of the Securities Act with respect to the disposition of all securities covered by such registration statement for the period set forth in subsection (a) above;

(d) Furnish such number of prospectuses, including any preliminary prospectuses, and other documents incident thereto, including any amendment of or supplement to the prospectus, as a Holder from time to time may reasonably request;

(e) Use its reasonable best efforts to register and qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdiction as shall be reasonably requested by the Holders; *provided*, that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions;

(f) Notify each seller of Registrable Securities covered by such registration statement at any time when a prospectus relating thereto is required to be delivered under the Securities Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading or incomplete in light of the circumstances then existing, and following such notification promptly prepare and furnish to such seller a reasonable number of copies of a supplement to or an amendment of such prospectus as may be necessary so that, as thereafter delivered to the purchasers of such shares, such prospectus shall not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading or incomplete in light of the circumstances then existing;

(g) If at any time when the Company is required to re-evaluate its WKSI status for purposes of an automatic shelf registration statement used to effect a request for registration in accordance with Section 2.3 (i) the Company determines that it is not a WKSI, (ii) the registration statement is required to be kept effective in accordance with this Agreement, and (iii) the registration rights of the applicable Holders have not terminated, promptly amend the registration statement onto a form the Company is then eligible to use or file a new registration statement on such form, and keep such registration statement effective in accordance with the requirements otherwise applicable under this Agreement;

(h) If (i) a registration made pursuant to a shelf registration statement is required to be kept effective in accordance with this Agreement after the third anniversary of the initial effective date of the shelf registration statement and (ii) the registration rights of the applicable Holders have not terminated, file a new registration statement with respect to any unsold Registrable Securities subject to the original request for registration prior to the end of the three-year period after the initial effective date of the shelf registration statement, and keep such registration statement effective in accordance with the requirements otherwise applicable under this Agreement;

(i) Use its commercially reasonable efforts to furnish, on the date that such Registrable Securities are delivered to the underwriters for sale, if such securities are being sold through underwriters, (i) an opinion, dated as of such date, of the counsel representing the Company for the purposes of such

registration, in form and substance as is customarily given to underwriters in an underwritten public offering, addressed to the underwriters, if any, and reasonably satisfactory to a majority in interest of the Holders requesting registration of Registrable Securities and (ii) a "comfort" letter dated as of such date, from the independent certified public accountants of the Company, in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering, addressed to the underwriters;

(j) Provide a transfer agent and registrar for all Registrable Securities registered pursuant to such registration statement and a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(k) Cause all such Registrable Securities registered pursuant hereunder to be listed on each securities exchange on which similar securities issued by the Company are then listed; and

(l) In connection with any underwritten offering pursuant to a registration statement filed pursuant to Section 2.1, enter into an underwriting agreement in form reasonably necessary to effect the offer and sale of Common Stock, *provided* such underwriting agreement contains reasonable and customary provisions, and *provided further*, that each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement.

2.6 Indemnification

(a) To the extent permitted by law, the Company will indemnify and hold harmless each Holder, each of its officers, directors and partners, legal counsel and accountants and each person controlling such Holder within the meaning of Section 15 of the Securities Act, with respect to which registration, qualification or compliance has been effected pursuant to this Section 2, and each underwriter, if any, and each person who controls within the meaning of Section 15 of the Securities Act any underwriter, against all expenses, claims, losses, damages and liabilities (or actions, proceedings or settlements in respect thereof) arising out of or based on: (i) any untrue statement (or alleged untrue statement) of a material fact contained or incorporated by reference in any prospectus, offering circular or other document (including any related registration statement, notification or the like) incident to any such registration, qualification or compliance, (ii) any 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 Company of the Securities Act, any state securities laws or any rule or regulation thereunder applicable to the Company and relating to action or inaction required of the Company in connection with any offering covered by such registration, qualification or compliance, and the Company will reimburse each such Holder, each of its officers, directors, partners, legal counsel and accountants and each person controlling such Holder, each such underwriter and each person who controls any such underwriter, for any legal and any other expenses reasonably incurred in connection with investigating and defending or settling any such claim, loss, damage, liability or action; *provided* that the Company will not be liable in any such case to the extent that any such claim, loss, damage, liability, or action arises out of or is based on any untrue statement or omission based upon written information furnished to the Company by such Holder, any of such Holder's officers, directors, partners, legal counsel or accountants, any person controlling such Holder, such underwriter or any person who controls any such underwriter, and stated to be specifically for use therein; and *provided*, *further* that, the indemnity agreement contained in this Section 2.6(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Company (which consent shall not be unreasonably withheld).

(b) To the extent permitted by law, each Holder will, severally and not jointly, if Registrable Securities held by such Holder are included in the securities as to which such registration, qualification or compliance is being effected, indemnify and hold harmless the Company, each of its directors, officers, partners, legal counsel and accountants and each underwriter, if any, of the Company's securities covered by such a registration statement, each person who controls the Company or such underwriter within the meaning of Section 15 of the Securities Act, each other such Holder, and each of their officers, directors and partners, and each person controlling each other such Holder, against all claims, losses, damages and liabilities (or actions in respect thereof) arising out of or based on: (i) any untrue statement (or alleged untrue statement) of a material fact contained or incorporated by reference in any prospectus, offering circular or other document (including any related registration statement, notification, or the like) incident to any such registration, qualification or compliance, or (ii) any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and will reimburse the Company and such Holders, directors, officers, partners, legal counsel and accountants, persons, underwriters, or control persons for any legal or any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability or action, in each case to the extent, but only to the extent, that such untrue statement (or alleged untrue statement) or omission (or alleged omission) is made in such registration statement, prospectus, offering circular or other document in reliance upon and in conformity with written information furnished to the Company by such Holder and stated to be specifically for use therein; *provided, however*, that the obligations of such Holder hereunder shall not apply to amounts paid in settlement of any such claims, losses, damages or liabilities (or actions in respect thereof) if such settlement is effected without the consent of such Holder (which consent shall not be unreasonably withheld); and *provided* that in no event shall the aggregate amount payable by any Holder by way of indemnity or contribution under Section 2.6(b) and Section 2.6(d) exceed the net 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) Each party entitled to indemnification under this Section 2.6 (the "***Indemnified Party***") shall give notice to the party required to provide indemnification (the "***Indemnifying Party***") promptly after such Indemnified Party has actual knowledge of any claim as to which indemnity may be sought, and shall permit the Indemnifying Party to assume the defense of such claim or any litigation resulting therefrom; *provided* that counsel for the Indemnifying Party, who shall conduct the defense of such claim or any litigation resulting therefrom, shall be approved by the Indemnified Party (whose approval shall not be unreasonably withheld), and the Indemnified Party may participate in such defense at such party's expense; and *provided further* that the failure of any Indemnified Party to give notice as provided herein shall not relieve the Indemnifying Party of its obligations under this Section 2.6, to the extent such failure is not prejudicial. No Indemnifying Party, in the defense of any such claim or litigation, shall, except with the consent of each Indemnified Party, consent to entry of any judgment or enter into any settlement that does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party of a release from all liability in respect to such claim or litigation. Each Indemnified Party shall furnish such information regarding itself or the claim in question as an Indemnifying Party may reasonably request in writing and as shall be reasonably required in connection with defense of such claim and litigation resulting therefrom.

(d) If the indemnification provided for in this Section 2.6 is held by a court of competent jurisdiction to be unavailable to an Indemnified Party with respect to any loss, liability, claim, damage, or expense referred to herein, then the Indemnifying Party, in lieu of indemnifying such Indemnified Party hereunder, shall contribute to the amount paid or payable by such Indemnified Party as a result of such loss, liability, claim, damage, or expense in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party on the one hand and of the Indemnified Party on the other in connection with the statements or omissions that resulted in such loss, liability, claim, damage, or expense as well as 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 alleged untrue statement of a material fact or the omission to state 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. In no event shall a Holder's liability under this Section 2.6(d), when combined with the amounts paid or payable by such Holder pursuant to Section 2.6(b), exceed the net proceeds from the offering received by such Holder (net of Selling Expenses paid by such Holder), except in the case of fraud or willful misconduct by such Holder. No person or entity guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any person or entity who was not guilty of such fraudulent misrepresentation.

(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.

2.7 Information by Holder Each Holder of Registrable Securities shall furnish to the Company such information regarding such Holder and the distribution proposed by such Holder as the Company may reasonably request in writing and as shall be reasonably required in connection with any registration, qualification, or compliance referred to in this Section 2.

2.8 Restrictions on Transfer

(a) The holder of each certificate representing Registrable Securities by acceptance thereof agrees to comply in all respects with the provisions of this Section 2.8. Each Holder agrees not to make any sale, assignment, transfer, pledge or other disposition of all or any portion of the Restricted Securities, or any beneficial interest therein, unless and until the transferee thereof has agreed in writing for the benefit of the Company to take and hold such Restricted Securities subject to, and to be bound by, the terms and conditions set forth in this Agreement, including, without limitation, this Section 2.8 and Section 2.10, except for transfers permitted under Section 2.8(b), and:

(i) There is then in effect a registration statement under the Securities Act covering such proposed disposition and the disposition is made in accordance with the registration statement; or

(ii) The Holder shall have given prior written notice to the Company of the Holder's intention to make such disposition and shall have furnished the Company with a detailed description of the manner and circumstances of the proposed disposition, and, if reasonably requested by the Company, the Holder shall have furnished the Company, at the Holder's expense, with (i) an opinion of counsel, reasonably satisfactory to the Company, to the effect that such disposition will not require registration of such Restricted Securities under the Securities Act or (ii) a "no action" letter from the Commission to the effect that the transfer of such securities without registration will not result in a recommendation by the staff of the Commission that action be taken with respect thereto, whereupon the holder of such Restricted Securities shall be entitled to transfer such Restricted Securities in accordance with the terms of the notice delivered by the Holder to the Company. It is agreed that the Company will not require opinions of counsel for transactions made pursuant to Rule 144 except in unusual circumstances.

(b) Notwithstanding the provisions of Section 2.8(a), no such registration statement or opinion of counsel or "no action" letter shall be necessary for (i) a transfer not involving a change in beneficial ownership, (ii) transactions involving the distribution without consideration of Restricted Securities by any Holder to (x) a parent, subsidiary or other Affiliate of the Holder, (y) any of the Holder's partners, members or other equity owners, or retired partners, retired members or other equity owners, or to the estate of any of the Holder's partners, members or other equity owners or retired partners, retired members or other equity owners, or (z) a venture capital fund that is controlled by or under common control with one or more

general partners or managing members of, or shares the same management company with, the Holder, or (iii) transfers in compliance with Rule 144 (except in unusual circumstances), as long as the Company is furnished with satisfactory evidence of compliance with such Rule; *provided*, in each case, that the Holder shall give written notice to the Company of the Holder's intention to effect such disposition and shall have furnished the Company with a detailed description of the manner and circumstances of the proposed disposition.

(c) Each certificate representing Registrable Securities shall (unless otherwise permitted by the provisions of this Agreement) be stamped or otherwise imprinted with a legend substantially similar to the following (in addition to any legend required under applicable state securities laws):

> THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR UNDER THE SECURITIES LAWS OF CERTAIN STATES. THESE SECURITIES MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED EXCEPT AS PERMITTED UNDER THE ACT AND APPLICABLE STATE SECURITIES LAWS PURSUANT TO REGISTRATION OR AN EXEMPTION THEREFROM. THE ISSUER OF THESE SECURITIES MAY REQUIRE AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE ISSUER THAT SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION OTHERWISE COMPLIES WITH THE ACT AND ANY APPLICABLE STATE SECURITIES LAWS.
>
> THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO (1) RESTRICTIONS ON TRANSFERABILITY AND RESALE, INCLUDING A LOCKUP PERIOD IN THE EVENT OF A PUBLIC OFFERING, AS SET FORTH IN AN INVESTORS' RIGHTS AGREEMENT, AND (2) VOTING RESTRICTIONS AS SET FORTH IN A VOTING AGREEMENT AMONG THE COMPANY AND THE ORIGINAL HOLDERS OF THESE SHARES, COPIES OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE COMPANY.

The Holders consent to the Company making a notation on its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer established in this Section 2.8.

(d) The first legend referring to federal and state securities laws identified in Section 2.8(c) stamped on a certificate evidencing the Restricted Securities and the stock transfer instructions and record notations with respect to the Restricted Securities shall be removed and the Company shall issue a certificate without such legend to the holder of Restricted Securities if (i) those securities are registered under the Securities Act, or (ii) the holder provides the Company with an opinion of counsel reasonably acceptable to the Company to the effect that a sale or transfer of those securities may be made without registration or qualification. The Company shall be obligated to reissue promptly un-legended certificates or an un-legended book entry position, as applicable, at the request of any Holder thereof if (1) the Company has completed its IPO, (2) the Holder is no longer subject to a lockup agreement with the Company or the underwriters in connection with such IPO, and (3) the Holder shall have obtained an opinion of counsel (which counsel may be counsel to the Company or counsel to the Holder) reasonably acceptable to the Company to the effect that the securities proposed to be disposed of may lawfully be so disposed of without registration, qualification and legend, provided that the second legend listed above shall be removed only at such time as the Holder of such certificate is no longer subject to any of the restrictions referred to in such legend.

(e) Each Investor agrees not to make any sale, assignment, transfer, pledge or other disposition of any securities of the Company, or any beneficial interest therein, to any person other than the Company unless and until the proposed transferee confirms to the reasonable satisfaction of the Company that neither the proposed transferee nor any of its directors, executive officers, other officers that may serve as a director or officer of any company in which it invests, general partners or managing members nor any person that would be deemed a beneficial owner of those securities (in accordance with Rule 506(d) of the Securities Act) is subject to any Bad Actor Disqualification, except as set forth in Rule 506(d)(2)(ii) or (iii) or (d)(3) under the Securities Act and disclosed, reasonably in advance of the transfer, in writing in reasonable detail to the Company.

2.9 Rule 144 Reporting With a view to making available the benefits of certain rules and regulations of the Commission that may permit the sale of the Restricted Securities to the public without registration, the Company agrees to use its commercially reasonable efforts to:

(a) Make and keep adequate current public information with respect to the Company available in accordance with Rule 144 under the Securities Act, at all times from and after ninety (90) days following the effective date of the first registration under the Securities Act filed by the Company for an offering of its securities to the general public;

(b) File with the Commission 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 it has become subject to such reporting requirements; and

(c) So long as a Holder owns any Restricted Securities, furnish to the Holder forthwith upon written request a written statement by the Company as to its compliance with the reporting requirements of Rule 144 (at any time from and after 90 days following the effective date of the first registration statement filed by the Company for an offering of its securities to the general public), and of the Securities Act and the Exchange Act (at any time after it has become subject to such reporting requirements), a copy of the most recent annual or quarterly report of the Company, and such other reports and documents so filed as a Holder may reasonably request in availing itself of any rule or regulation of the Commission allowing a Holder to sell any such securities without registration.

2.10 Market Stand-Off Agreement Each Holder shall not sell or otherwise transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale, of any Common Stock (or other securities) of the Company held by such Holder (other than those included in the registration) during the 180-day period following the effective date of the registration statement for the Company's Initial Public Offering filed under the Securities Act (or such other period as may be requested by the Company or an underwriter 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 FINRA Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto), *provided* that all officers and directors of the Company and all holders of at least one percent (1%) of the Company's voting securities are bound by and have entered into similar agreements. The foregoing obligations described in this Section 2.10 shall apply only to the Company's Initial Public Offering, and shall not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement, to shares acquired in the open market after effectiveness of the registration statement for the Initial Public Offering, to shares acquired in the Company's Initial Public Offering, or to a registration relating solely to employee benefit plans on Form S-l or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a transaction on Form S-4 or similar forms that may be promulgated in the future. The Company may impose stop-transfer instructions and may stamp each such certificate with the second legend set forth in Section 2.8(c) with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of such 180-day (or other) period. Each Holder agrees to execute a market standoff agreement with said underwriters in customary form consistent with the provisions of this Section 2.10. To the extent that the underwriters propose to fully or partially

release the above restrictions as to any holder or holders of securities of the Company, such release of shares shall be applicable to all Holders on a *pro rata* basis, and the numbers of shares to be released by each Holder of securities of the Company shall be determined by multiplying that number of shares held by such Holder by a fraction, the numerator of which is the aggregate number of shares to be so released and the denominator of which is the total number of shares owned by all Holders at the time of such release. The underwriters in connection with the Company's Initial Public Offering are intended third-party beneficiaries of this Section 2.10 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto.

2.11 Delay of Registration No Holder shall have any right to take any action to restrain, enjoin, or otherwise delay any registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.12 Transfer or Assignment of Registration Rights The rights to cause the Company to register securities granted to a Holder by the Company under this Section 2 may be transferred or assigned by a Holder only to (a) a subsidiary, parent, partner, limited partner, retired partner, member, retired member or stockholder of a Holder, (b) an Affiliate of a Holder, or (c) a transferee or assignee of not less than 500,000 shares of Registrable Securities (as presently constituted and subject to subsequent adjustments for stock splits, stock dividends, reverse stock splits, and the like); *provided* that (i) such transfer or assignment of Registrable Securities is effected in accordance with the terms of Section 2.8 and applicable securities laws, (ii) the Company is given written notice prior to said transfer or assignment, stating the name and address of the transferee or assignee and identifying the securities with respect to which such registration rights are intended to be transferred or assigned and (iii) the transferee or assignee of such rights assumes in writing the obligations of such Holder under this Agreement, including without limitation the obligations set forth in Section 2.10.

2.13 Limitations on Subsequent Registration Rights From and after the date of this Agreement, the Company shall not, without the prior written consent of Holders holding at least a Preferred Majority, enter into any agreement with any holder or prospective holder of any securities of the Company giving such holder or prospective holder any registration rights the terms of which are *pari passu* with or senior to the registration rights granted to the Holders hereunder.

2.14 Termination of Registration Rights The right of any Holder to request registration or inclusion in any registration pursuant to Sections 2.1, 2.2 or 2.3 shall terminate on the earliest of (i) such date, on or after the closing of the Company's first registered public offering of Common Stock, on which all shares of Registrable Securities held or entitled to be held upon conversion by such Holder may immediately be sold under Rule 144 during any 90-day period or (ii) the occurrence of a Deemed Liquidation Event (as defined in the Company's Fifth Amended and Restated Certificate of Incorporation, as may be amended from time to time).

SECTION 3

COVENANTS OF THE COMPANY

The Company hereby covenants and agrees, as follows:

3.1 Basic Financial Information and Inspection Rights

(a) ***Basic Financial Information.*** The Company will furnish the following reports to each Holder who owns at least 1,500,000 Shares both as of the date hereof and continues to own 1,500,000

Shares thereafter (as presently constituted and subject to subsequent adjustments for stock splits, stock dividends, reverse stock splits, and the like) (each a ***Major Information Holder"):***

(i) As soon as practicable after the end of each fiscal year of the Company, and in any event within 120 days after the end of each fiscal year of the Company, a consolidated balance sheet of the Company and its subsidiaries, if any, as at the end of such fiscal year, and consolidated statements of income and cash flows of the Company and its subsidiaries, if any, for such year, prepared in accordance with U.S. generally accepted accounting principles consistently applied, certified by independent public accountants of recognized national standing selected by the Company;

(ii) As soon as practicable after the end of the first, second and third quarterly accounting periods in each fiscal year of the Company, and in any event within 45 days after the end of the first, second, and third quarterly accounting periods in each fiscal year of the Company, an unaudited consolidated balance sheet of the Company and its subsidiaries, if any, as of the end of each such quarterly period, and unaudited consolidated statements of income and cash flows of the Company and its subsidiaries, if any, for such period, prepared in accordance with U.S. generally accepted accounting principles consistently applied, subject to changes resulting from normal year-end audit adjustments;

(iii) As soon as practicable after the end of each month, an unaudited consolidated balance sheet of the Company and its subsidiaries, if any, as of the end of each such month, and unaudited consolidated statements of income and cash flows of the Company and its subsidiaries, if any, for such month, prepared in accordance with U.S. generally accepted accounting principles consistently applied, subject to changes resulting from normal year-end audit adjustments.

(iv) At least 30 days prior to the end of each fiscal year an operating budget forecasting the Company's revenues, expenses and cash position on a month-to-month basis for the upcoming fiscal year that has been approved by the Board of Directors of the Company; and

(v) As soon as practicable after the end of each quarterly accounting period in each fiscal year of the Company, and in any event within 45 days after the end of each quarterly accounting period in each fiscal year of the Company, a current capitalization table certified by the Chief Financial Officer or Treasurer of the Company.

(b) ***Inspection Rights.*** The Company will afford to each Major Information Holder reasonable access during normal business hours to all of the Company's respective properties, books and records. Each such Major Information Holder shall have such other reasonable access to management and information as is necessary for it to comply with applicable laws and regulations and reporting obligations. The Company shall not be required to disclose details of contracts with or work performed for specific customers and other business partners where to do so would violate confidentiality obligations to those parties. Major Information Holders may exercise their rights under this Section 3.1(b) only for purposes reasonably related to their interests under this agreement and related agreements. The rights granted pursuant to this Section 3.1(b) may not be assigned or otherwise conveyed by the Major Information Holders or any subsequent transferee of any such rights without the prior written consent of the Company, unless assigned or otherwise conveyed in connection with a transfer of Registrable Securities that complies with the provisions set forth in Section 2.8 above.

3.2 Key Man Insurance

The Company will use its commercially reasonable efforts to obtain and maintain in full force and effect term life insurance on the lives of Douglas Love, the Company's Chief Medical Officer (as and when hired) and Ted Yednock in an amount customary for similarly situated companies and as may be approved by the Board of Directors of the Company, naming the Company as the beneficiary.

3.3 Proprietary Information and Inventions Assignment Agreements

Unless otherwise determined by the Board of Directors of the Company (including at least two of the Preferred Directors (as defined in the Company's Fifth Amended and Restated Certificate of Incorporation, as may be amended from time to time)), promptly following the execution of this Agreement, the Company shall require all former and current founders and employees, and shall use commercially reasonable efforts to require all current independent contractors and consultants, and in the future shall require all founders and employees, and shall use commercially reasonable efforts to require all independent contractors and consultants, to execute and deliver agreements containing proprietary information, non-disclosure, assignment of inventions, no conflicting obligations, non-competition and non-solicitation provisions in forms acceptable to the Investors and approved by the Company's counsel or the Board of Directors of the Company (including at least two of the Preferred Directors (as defined in the Company's Fifth Amended and Restated Certificate of Incorporation, as may be amended from time to time)). Unless otherwise determined by the Board of Directors of the Company (including at least two of the Preferred Directors (as defined in the Company's Fifth Amended and Restated Certificate of Incorporation, as may be amended from time to time)), the Company shall not make any equity award to any founder, employee or independent contractor or consultant who has not executed and delivered such an agreement. The Company and the Investors acknowledge and agree that if the Company is unable to negotiate and enter into such an agreement with a current or future independent contractor or consultant and the Board of Directors of the Company (including at least two of the Preferred Directors (as defined in the Company's Fifth Amended and Restated Certificate of Incorporation, as may be amended from time to time)) determines that such an agreement is not required for such independent contractor or consultant, the Company's inability to enter into such an agreement with such independent contractor or consultant shall not be deemed to be a breach of this Section 3.3.

3.4 Confidentiality Anything in this Agreement to the contrary notwithstanding, no Holder by reason of this Agreement shall have access to any trade secrets of the Company. The Company shall not be required to comply with any information rights of Section 3 in respect of any Holder whom the Board of Directors of the Company reasonably determines to be a competitor or an officer, employee, director or holder of more than 10% of a competitor, *provided* that Bain Capital Life Sciences Fund, LP, New Enterprise Associates 15, L.P., Novartis Bioventures, Ltd., the Satter Investors, and Surveyor Capital and their Affiliates are deemed not to be competitors. Each Holder acknowledges that the information received by it pursuant to this Agreement may be confidential and for its use only, and it will not use such confidential information in violation of the Exchange Act or reproduce, disclose or disseminate such information to any other person (other than its employees or agents having a need to know the contents of such information, and its attorneys), except in connection with the exercise of rights under this Agreement, or to the extent required in connection with any routine or periodic examination or similar process by any regulatory or self-regulatory body or authority not specifically directed at the Company or the confidential information obtained from the Company pursuant to the terms of this Agreement, including, without limitation, quarterly or annual reports, unless the Company has made such information available to the public generally.

3.5 Matter Requiring Preferred Director Approval.

The Company will not, without the approval of the Board of Directors of the Company, which approval (for so long as the holders of Preferred Stock are entitled to elect at least one of the Company's directors) must include the affirmative vote of a majority of the directors designated by the holders of Preferred Stock (the "***Preferred Directors***"):

(a) make any expenditure in excess of $250,000 that is not already included in a Board of Directors of the Company approved budget;

(b) make any investment inconsistent with any investment policy approved by the Board of Directors of the Company;

(c) hire, fire, or change the compensation of the executive officers or Founders (as defined in the Purchase Agreement), including approving any equity awards; or

(d) enter into any corporate strategic relationship involving the payment contribution or assignment by the Company or to the Company of assets greater than $250,000.

3.6 Director and Officer Insurance. The Company will use its commercially reasonable efforts to obtain and maintain in full force and effect director and officer insurance in the amount customary for similarly situated companies and as may be approved by the Board of Directors of the Company. The Company will enter into an indemnification agreement with each Series C Director in a form acceptable to such director. In the event the Company or any of its successors or assignees consolidates or merges with another entity and is not the surviving corporation, or transfers all of its assets, proper provisions shall be made so that successors of the Company will assume the Company's obligations with respect to indemnification of its directors and officers as in effect immediately before such transaction, whether such obligations are contained in the Company's bylaws, its Certificate of Incorporation, or elsewhere, as the case may be.

3.7 Reimbursement of Travel and Expenses.

The Company will reimburse the Investors set forth in Exhibit A for all reasonable out-of-pocket expenses incurred by their representatives in the performance of their duties as directors and/or observers as long as such expenses are in compliance with the Company's travel and expense policy.

3.8 Compensation of Directors

If the Company compensates any non-employee director of the Company who is not affiliated with an Investor (a "***Covered Director***") for his or her services as a member of the Board of Directors of the Company, all such Covered Directors shall receive the same compensation. The Company shall not provide any compensation to any director of the Company who is otherwise an independent contractor to, or an employee of, the Company for his or her services as a member of the Board of Directors of the Company.

3.9 Meetings of the Board of Directors

The Board of Directors of the Company shall meet at least five times per year, unless otherwise agreed by a vote of the majority of the Company's Board of Directors.

3.10 Board Committees

Each committee of the Board of Directors shall consist of the Series B Director, at least one Series A Director and at least one Series C Director (each, as defined in the Company's Fifth Amended and Restated Certificate of Incorporation, as may be amended from time to time) appointed by Bain Capital Life Sciences Fund, LP.

3.11 Internal Controls

The Company shall (and shall cause each of its subsidiaries and controlled affiliates to) maintain systems of internal controls (including, but not limited to, accounting systems, purchasing systems and billing systems, and systems designed to ensure compliance with the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act, and any other applicable anti-bribery or anti-corruption laws), as determined by the board of directors of the Company from time to time.

The Company shall provide prompt notice to New Enterprise Associates 15, L.P. ("***NEA 15***") following any "determination date" (as defined in Treasury Regulation Section 1.897-2(c)(1)) on which the Company becomes a United States real property holding corporation. In addition, upon a written request by NEA 15, the Company shall provide NEA 15 with a written statement informing NEA 15 whether NEA 15's interest in the Company constitutes a United States real property interest. The Company's determination shall comply with the requirements of Treasury Regulation Section 1.897-2(h)(1) or any successor regulation, and the Company shall provide timely notice to the Internal Revenue Service, in accordance with and to the extent required by Treasury Regulation Section 1.897-2(h)(2) or any successor regulation, that such statement has been made. The Company's written statement to NEA 15 shall be delivered to NEA 15 within 10 days of NEA 15's written request therefor. The Company's obligation to furnish such written statement shall continue notwithstanding the fact that a class of the Company's stock may be regularly traded on an established securities market or the fact that there is no Preferred Stock then outstanding.

3.12 Qualified Small Business Stock

The Company shall submit to its stockholders (including the Investors) and to the Internal Revenue Service any reports that may be required under Section 1202(d)(1)(C) of the Internal Revenue Code (the "Code") and the regulations promulgated thereunder. In addition, within twenty (20) business days after any Investor's written request therefor, the Company shall, at its option, either (i) deliver to such Investor a written statement indicating whether (and what portion of) such Investor's interest in the Company constitutes "qualified small business stock" as defined in Section 1202(c) of the Code or (ii) deliver to such Investor such factual information in the Company's possession as is reasonably necessary to enable such Investor to determine whether (and what portion of) such Investor's interest in the Company constitutes "qualified small business stock" as defined in Section 1202(c) of the Code.

3.13 Termination of Covenants Subject to prior termination pursuant to Sections 5.13 or 5.17, the covenants set forth in this Section 3 shall be suspended for so long as the Company is subject to, and compliant with, the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act.

SECTION 4

RIGHT OF FIRST REFUSAL

4.1 Right of First Refusal to Major Holder The Company hereby grants to each (i) Major Information Holder, (ii) Series B Investor and (iii) Series C Investor (each, a "***Major Holder*** "and collectively, the "***Major Holders***") the right of first refusal to purchase its *pro rata* share of New Securities (as defined in this Section 4.1(a)) which the Company may, from time to time, propose to sell and issue after the date of this Agreement. A Major Holder who chooses to exercise the right of first refusal may designate as purchasers under such right itself or its partners or Affiliates in such proportions as it deems appropriate. A Major Holder's *pro rata* share, for purposes of this right of first refusal, is equal to the ratio of (a) the number of shares of Common Stock owned by such Major Holder immediately prior to the issuance of New Securities (assuming full conversion of the Shares and full conversion or exercise of all outstanding convertible securities, rights, options and warrants held by said Major Holder) to (b) the total number of shares of

Common Stock outstanding immediately prior to the issuance of New Securities (assuming full conversion of the Shares and full conversion or exercise of all outstanding convertible securities, rights, options and warrants). This right of first refusal shall be subject to the following provisions:

(a) "***New Securities***" shall mean any capital stock (including Common Stock and/or Preferred Stock) of the Company whether now authorized or not, and rights, convertible securities, options or warrants to purchase such capital stock, and securities of any type whatsoever that are, or may become, exercisable or convertible into capital stock; *provided* that the term "***New Securities***" does not include:

(i) the Shares and the Conversion Stock;

(ii) shares of Common Stock and options, warrants or other rights to purchase Common Stock issued or issuable to employees, officers or directors of, or consultants or advisors to the Company or any subsidiary pursuant to any plan approved by the Board of Directors of the Company, including at least three of the Preferred Directors;

(iii) securities issued or issuable upon the exercise or conversion of any outstanding convertible or exercisable securities as of this date of this Agreement;

(iv) securities issued or issuable as a dividend or distribution on Preferred Stock of the Company or pursuant to any event for which adjustment is made pursuant to paragraph 4(e), 4(f) or 4(g) of the Company's Fifth Amended and Restated Certificate of Incorporation, as may be amended from time to time;

(v) securities issued or issuable as consideration pursuant to the acquisition of another corporation by the Company 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 of the Company;

(vi) securities issued or issuable to banks, equipment lessors or other financial institutions pursuant to a commercial leasing or debt financing transaction approved by the Board of Directors of the Company;

(vii) securities issued or issuable in connection with sponsored research, collaboration, technology license, development, OEM, marketing or other similar agreements or strategic partnerships approved by the Board of Directors of the Company; and

(viii) securities issued to suppliers or third party service providers in connection with the provision of goods or services pursuant to transactions approved by the Board of Directors of the Company.

Notwithstanding the foregoing, if more than an aggregate of 1,000,000 shares of capital stock (as presently constituted and subject to subsequent adjustments for stock splits, stock dividends, reverse stock splits, and the like) are issued pursuant to paragraphs 4.1(a)(v)-(viii) above, then any shares issued in excess of such threshold shall be deemed to be New Securities for purposes hereof.

(b) In the event the Company proposes to undertake an issuance of New Securities, it shall give each Major Holder written notice of its intention, describing the type of New Securities, and their price and the general terms upon which the Company proposes to issue the same. Each Major Holder shall have 20 days after any such notice is mailed or delivered to agree to purchase such Major Holder's *pro rata* share of such New Securities and to indicate whether such Major Holder desires to exercise its right to

purchase its *pro rata* share of the Overallotment Shares (the "***Overallotment Right***") for the price and upon the terms specified in the notice by giving written notice to the Company, in substantially the form attached as Schedule 1, and stating therein the quantity of New Securities to be purchased. For clarity, a Major Holder's *pro rata* share of the Overallotment Shares shall be equal to the ratio of (i) the number of shares of Common Stock owned by such Major Holder immediately prior to the issuance of New Securities (assuming full conversion of the Shares and full conversion or exercise of all outstanding convertible securities, rights, options and warrants held by said Major Holder) to (ii) the total number of shares of Common Stock held by all of the Major Holders immediately prior to the issuance of New Securities (assuming full conversion of the Shares and full conversion or exercise of all outstanding convertible securities, rights, options and warrants held by all of the Major Holders), with all such Major Holder *pro rata* shares aggregating to 100% of the Overallotment Shares.

(c) In the event a Major Holder fails to exercise fully the right of first refusal and Overallotment Right (a "***non-exercising Major Holder***") within said 20-day period (the "***Major Holder Exercise Period***"), that Major Holder immediately shall provide written notice to each other Major Holder who has elected to exercise fully the right of first refusal and Overallotment Right (a "***Fully Exercising Major Holder***") of the number of shares not subscribed for pursuant to Section 4.1 above (the "***Overallotment Shares***"), and each Fully Exercising Major Holder shall have the right to exercise, within 10 days after the end of the Major Holder Exercise Period (such 10-day period, the "***Overallotment Exercise Period***"), all or a portion of its right of first refusal and Overallotment Right. With respect to the overallotment election under this Section 4.1(c), securities held by Major Holders other than Fully Exercising Major Holders shall be excluded for purposes of calculating a Fully Exercising Major Holder's initial *pro rata* share of New Securities.

(d) In the event the Major Holders fail to exercise fully the right of first refusal and Overallotment Right, if any, within the later of (i) the expiration of the Major Purchaser Exercise Period and (ii) the expiration of the Overallotment Exercise Period (the "***Election Period***"), the Company shall have 90 days thereafter to sell or enter into an agreement (pursuant to which the sale of New Securities covered thereby shall be closed, if at all, within 90 days from the date of said agreement) to sell that portion of the New Securities with respect to which the Major Holders' right of first refusal option set forth in this Section 4.1 was not exercised, at a price and upon terms no more favorable to the purchasers thereof than specified in the Company's notice to Major Holders delivered pursuant to Section 4.1(b). In the event the Company has not sold within such 90 day period following the Election Period, or such 90-day period following the date of said agreement, the Company shall not thereafter issue or sell any New Securities, without first again offering such securities to the Major Holders in the manner provided in this Section 4.1.

(e) The right of first refusal granted under this Agreement shall expire upon, and shall not be applicable to, the earlier of (i)immediately prior to the closing of a firm-commitment underwritten initial public offering pursuant to an effective registration statement filed under the Securities Act, covering the offer and sale of the Company's Common Stock, *provided* that the offering price per share is not less than $2.70 (as adjusted for recapitalizations) and the aggregate net proceeds to the Company are greater than $50,000,000; (ii) a Deemed Liquidation Event (as defined in the Company's Fifth Amended and Restated Certificate of Incorporation, as may be amended from time to time or (iii) the date that the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act.

(f) A Holder will not have a right of first refusal to purchase a *pro rata* share of New Securities in accordance with this Section 4 and will not be a Major Holder for purposes of the right of first refusal granted under this Section 4 if, and for so long as, the Holder, any of its directors, executive officers, other officers that may serve as a director or officer of any company in which it invests, general partners or managing members or any person that would be deemed a beneficial owner of the securities of the Company held by the Holder (in accordance with Rule 506(d) of the Securities Act) is subject to any Bad Actor Disqualification, except as set forth in Rule 506(d)(2)(ii) or (iii) or (d)(3) under the Securities Act.

SECTION 5

MISCELLANEOUS

5.1 Amendment Except as expressly provided herein, neither this Agreement nor any term hereof may be amended, waived, discharged or terminated other than by a written instrument referencing this Agreement and signed by the Company and the Holders holding at least a Preferred Majority (excluding any of such shares that have been sold to the public or pursuant to Rule 144). Notwithstanding the foregoing, 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 (such Investors, "***Participating Investors***") may nonetheless, by agreement with the Company, purchase securities in such transaction; provided, however, that if any Participating Investor purchases securities in such transaction, then each Series C Investor and each Satter Investor will also have the right to purchase securities in such transaction in a proportionate amount, based on the relative fully-diluted ownership percentage of the Company held by such Series C Investor or such Satter Investor, as applicable, as compared to such Participating Investor), which right may not be waived as to any Investor without such Investor's consent. Any such amendment, waiver, discharge or termination effected in accordance with this paragraph shall be binding upon each Holder and each future holder of all such securities of Holder. Each Holder acknowledges that by the operation of this paragraph (but subject to the second sentence of this paragraph), the holders of at least a Preferred Majority will have the right and power to diminish or eliminate all rights of such Holder under this Agreement. Holders purchasing Shares in a Closing after the Initial Closing (each as defined in the Purchase Agreement) may become parties to this Agreement, by executing a counterpart of this Agreement without any amendment of this Agreement pursuant to this paragraph or any consent or approval of any other Holder.

5.2 Notices All notices and other communications required or permitted hereunder shall be in writing and shall be mailed by registered or certified mail, postage prepaid, sent by facsimile or electronic mail (if to an Investor or Holder) or otherwise delivered by hand, messenger or courier service addressed:

(a) if to an Investor, to the Investor's address, facsimile number or electronic mail address as shown on the signature pages hereto or the Schedule of Investors, as may be updated in accordance with this Section 5.2, or until any such Investor so furnishes an address, facsimile number or electronic mail address to the Company, then to the address, facsimile number or electronic mail address of such Investor for which the Company has contact information in its records;

(b) if to any Holder, to such address, facsimile number or electronic mail address as shown in the Company's records, or, until any such Holder so furnishes an address, facsimile number or electronic mail address to the Company, then to the address, facsimile number or electronic mail address of the last holder of such shares for which the Company has contact information in its records; or

(c) if to the Company, to the attention of the Chief Executive Officer or Treasurer of the Company at P.O. Box 2931, South San Francisco, CA 94083-2931, or at such other current address as the Company shall have furnished to the Investors or Holders, with a copy (which shall not constitute notice) to Ken Clark, Wilson Sonsini Goodrich & Rosati, P.C., 650 Page Mill Road, Palo Alto, CA 94304.

Each such notice or other communication shall for all purposes of this Agreement be treated as effective or having been given (i) if delivered by hand, messenger or courier service, when delivered (or if sent via a nationally-recognized overnight courier service, freight prepaid, specifying next-business-day delivery, one business day after deposit with the courier), or (ii) if sent via mail, at the earlier of its receipt or five days after the same has been deposited in a regularly-maintained receptacle for the deposit of the United States mail, addressed and mailed as aforesaid, or (iii) if sent via facsimile, upon confirmation of facsimile transfer or, if sent via electronic mail, upon confirmation of delivery when directed to the relevant electronic mail address, if sent during normal business hours of the recipient, or if not sent during normal business hours of the recipient, then on the recipient's next business day.

Subject to the limitations set forth in Delaware General Corporation Law §232(e), each Investor and Holder consents to the delivery of any notice to stockholders given by the Company under the Delaware General Corporation Law or the Company's certificate of incorporation or bylaws by (i) facsimile telecommunication to the facsimile number set forth on Exhibit A (or to any other facsimile number for the Investor or Holder in the Company's records), (ii) electronic mail to the electronic mail address set forth on Exhibit A (or to any other electronic mail address for the Investor or Holder in the Company's records), (iii) posting on an electronic network together with separate notice to the Investor or Holder of such specific posting or (iv) any other form of electronic transmission (as defined in the Delaware General Corporation Law) directed to the Investor or Holder. This consent may be revoked by an Investor or Holder by written notice to the Company and may be deemed revoked in the circumstances specified in Delaware General Corporation Law §232.

5.3 Governing Law This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, regardless of the laws that might otherwise govern under applicable principles of conflicts of law.

5.4 Successors and Assigns This Agreement, and any and all rights, duties and obligations hereunder, shall not be assigned, transferred, delegated or sublicensed by any Investor without the prior written consent of the Company. Any attempt by an Investor without such permission to assign, transfer, delegate or sublicense any rights, duties or obligations that arise under this Agreement shall be void. Subject to the foregoing and except as otherwise provided herein, the provisions of this Agreement shall inure to the benefit of, and be binding upon, the successors, assigns, heirs, executors and administrators of the parties hereto.

5.5 Entire Agreement Upon the effectiveness of this Agreement, the Prior Agreement shall be deemed amended and restated to read in its entirety as set forth in this Agreement. This Agreement and the exhibits hereto constitute the full and entire understanding and agreement between the parties with regard to the subjects hereof. No party hereto shall be liable or bound to any other party in any manner with regard to the subjects hereof or thereof by any warranties, representations or covenants except as specifically set forth herein.

5.6 Delays or Omissions Except as expressly provided herein, no delay or omission to exercise any right, power or remedy accruing to any party to this Agreement upon any breach or default of any other party under this Agreement shall impair any such right, power or remedy of such non-defaulting party, nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in 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. Any waiver, permit, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to any party to this Agreement, shall be cumulative and not alternative.

5.7 Severability If any provision of this Agreement becomes or is declared 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 Agreement, and such court will replace such illegal, void or unenforceable provision of this Agreement with a valid and enforceable provision that will achieve, to the extent possible, the same economic, business and other purposes of the illegal, void or unenforceable provision. The balance of this Agreement shall be enforceable in accordance with its terms.

5.8 Titles and Subtitles The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement. All references in this Agreement to sections, paragraphs and exhibits shall, unless otherwise provided, refer to sections and paragraphs hereof and exhibits attached hereto.

5.9 Counterparts This Agreement may be executed in any number of counterparts, each of which shall be enforceable against the parties that execute such counterparts, and all of which together shall constitute one instrument.

5.10 Telecopy Execution and Delivery A facsimile, telecopy or other reproduction of this Agreement may be executed by one or more parties hereto and delivered by such party by facsimile or any similar electronic transmission device pursuant to which the signature of or on behalf of such party can be seen. Such execution and delivery shall be considered valid, binding and effective for all purposes. At the request of any party hereto, all parties hereto agree to execute and deliver an original of this Agreement as well as any facsimile, telecopy or other reproduction hereof.

5.11 Jurisdiction; Venue; WAIVER OF JURY TRIAL The parties hereto (a) hereby irrevocably and unconditionally submit to the jurisdiction of the U.S. federal and state courts of the State of Delaware and to the jurisdiction of the U.S. District Court for the District of Delaware for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement, (b) agree not to commence any suit, action or other proceeding arising out of or based upon this Agreement except in the U.S. federal and state courts located within the geographic boundaries of the State of Delaware or the U.S. District Court for the District of Delaware, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court. Each of the parties to this Agreement consents to personal jurisdiction for any equitable action sought in the U.S. District Court for the District of Delaware or any court of the State of Delaware having subject matter jurisdiction. THE PARTIES HERETO EACH HEREBY WAIVE ANY RIGHT TO A TRIAL BY JURY IN ANY ACTION, SUIT OR OTHER LEGAL PROCEEDING ARISING UNDER OR RELATING TO ANY PROVISION OF THIS AGREEMENT.

5.12 Further Assurances Each party hereto agrees to execute and deliver, by the proper exercise of its corporate, limited liability company, partnership or other powers, all such other and additional instruments and documents and do all such other acts and things as may be necessary to more fully effectuate this Agreement.

5.13 Termination Upon Change of Control Notwithstanding anything to the contrary herein, this Agreement (excluding any then existing obligations) shall terminate upon (a) the acquisition of the Company by another entity by means of any transaction or series of related transactions to which the Company is party (including, without limitation, any stock acquisition, reorganization, merger or consolidation but excluding any sale of stock for capital raising purposes) other than a transaction or series of transactions in which the holders of the voting securities of the Company outstanding immediately prior to such transaction continue to retain (either by such voting securities remaining outstanding or by such voting securities being converted into voting securities of the surviving entity), as a result of shares in the Company held by such holders prior to such transaction, at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such transaction or series of transactions; or (b) a sale, lease, transfer or other disposition of all or substantially all of the assets of the Company and its subsidiaries taken as a whole by means of any transaction or series of related transactions, except where such sale, lease, transfer, or other disposition is to a wholly-owned subsidiary of the Company.

5.14 Conflict In the event of any conflict between the terms of this Agreement and the Company's certificate of incorporation or its bylaws, the terms of the Company's certificate of incorporation or its bylaws, as the case may be, will control.

5.15 Attorneys' Fees In the event that any suit or action is instituted to enforce any provision in this Agreement, the prevailing party in such dispute shall be entitled to recover from the losing party such reasonable fees and expenses of attorneys and accountants, which shall include, without limitation, all fees, costs and expenses of appeals.

5.16 Aggregation of Stock All securities held or acquired by affiliated entities (including Affiliates) or persons shall be aggregated together for purposes of determining the availability of any rights under this Agreement.

5.17 Exchange of Shares and Termination of Rights In the event that an Investor is a Defaulting Investor pursuant to (and as defined in) Article V, Section 5 of the Company's Fifth Amended and Restated Certificate of Incorporation, then such Investor shall no longer be considered an "Investor" for any purpose under this Agreement, other than for purposes of the restrictions and obligations under Sections 2.8, 2.10, 3.4 and 5.11, which shall continue to apply to such party. In addition, each Investor acknowledges and agrees that such Defaulting Investor will lose all board designation, board observer, first refusal, co-sale, information, inspection, participation and other rights of an Investor hereunder and as provided in the other agreements with the Company.

5.18 Waivers of Potential Conflicts of Interest Each of the stockholders of the Company and the Company acknowledges that Wilson Sonsini Goodrich & Rosati, Professional Corporation ("***WSGR***") may have represented and may currently represent other stockholder of the Company. In the course of such representation, WSGR may have come into possession of confidential information relating to such stockholders of the Company. Each of the stockholders of the Company and the Company acknowledges that WSGR is representing only the Company in this transaction. Each of the stockholders of the Company and the Company understands that an Affiliate of WSGR may also be a stockholder of the Company under this Agreement. Pursuant to Rule 3-310 of the Rules of Professional Conduct promulgated by the State Bar of California, an attorney must avoid representations in which the attorney has or had a relationship with another party interested in the representation without the informed written consent of all parties affected. By executing this Agreement, each of the stockholders of the Company and the Company hereby waives any actual or potential conflict of interest that may arise in this financing as a result of WSGR's representation of such persons or entities in the financing, WSGR's possession of such confidential information and the participation by WSGR's Affiliate in the financing. Each of the stockholders of the Company and the Company represents that it has had the opportunity to consult with independent counsel concerning the giving of this waiver.

(*signature pages follow*)

The parties are signing this Amended and Restated Investors' Rights Agreement as of the date stated in the introductory clause.

ANNEXON, INC.
a Delaware corporation

By: /s/ Douglas Love
Name: Douglas Love
Title: Chief Executive Officer

(*Signature page to the Amended and Restated Investors' Rights Agreement*)

The parties are signing this Amended and Restated Investors' Rights Agreement as of the date stated in the introductory clause.

INVESTORS

BCIP LIFE SCIENCES ASSOCIATES, LP

By: Boylston Coinvestors, LLC
its general partner

By: /s/ Jeffrey Schwartz
Name: Jeffrey Schwartz
Title: Authorized Signatory

BAIN CAPITAL LIFE SCIENCES FUND, L.P.

By: Bain Capital Life Sciences Partners, LP
its general partner

By: Bain Capital Life Sciences Investors, LLC
its general partner

By: /s/ Jeffrey Schwartz
Name: Jeffrey Schwartz
Title: Managing Director

Address:
200 Clarendon Street
Boston, MA 02116
Attention:
Jeffrey Schwartz
Melissa Danforth

With a copy (which shall not constitute notice) to:

Goodwin Procter LLP
620 8th Avenue
New York, NY 10019
Attention:
Paul N. Cicero

The parties are signing this Amended and Restated Investors' Rights Agreement as of the date stated in the introductory clause.

Citadel Multi-Strategy Equities Master Fund Ltd.
By: Citadel Advisors LLC, its portfolio manager

By: /s/ Noah Goldberg
Name: Noah Goldberg
Title: Authorized Signatory

Address:
c/o Citadel Advisors LLC
601 Lexington Ave.
New York, NY 10022
Attention: Noah Goldberg
Email: ***

with a copy (which shall not constitute notice) to:

Choate, Hall & Stewart LLP
Two International Place
Boston, MA 02110
Attention: Toby P. Sullivan

The parties are signing this Amended and Restated Investors' Rights Agreement as of the date stated in the introductory clause.

Adage Capital Partners, LP
By: Adage Capital Partners, GP, its General Partner
By: Adage Capital Advisors, LLC, its Managing Member

By: /s/ Dan Lehan
Name: Dan Lehan
Title: Chief Operating Officer

Address:
200 Clarendon Street, 52nd Flr.
Boston, MA 02116
Attention: Dan Lehan, CEO

(*Signature page to the Amended and Restated Investors' Rights Agreement*)

The parties are signing this Amended and Restated Investors' Rights Agreement as of the date stated in the introductory clause.

INVESTOR

NEW ENTERPRISE ASSOCIATES 15, L.P.

By: /s/ Louis S. Citron
Name: Louis S. Citron
Title: Chief Legal Officer

NEA VENTURES 2016, LIMITED PARTNERSHIP

By: /s/ Louis S. Citron
Name: Louis S. Citron
Title: Vice President

1954 Greenspring Drive, Suite 600
Timonium, MD 21093
Attn: Louis Citron, General Counsel
Email: ***

with a copy (which shall not constitute notice) to:

Greenberg Traurig, LLP

2101 L Street, N.W., Suite 1000
Washington, DC 20037
Attn Trevor Chaplick
Fax: ***
Email: ***

The parties are signing this Amended and Restated Investors' Rights Agreement as of the date stated in the introductory clause.

NOVARTIS BIOVENTURES LTD.

By: /s/ Bart Dzikowski
Name: Bart Dzikowski
Title: Secretary of the Board

By: /s/ Beat Steffen
Name: Beat Steffen
Title: Authorized Signatory

Address:
Lichtstrasse 35
CH-4056 Basel, Switzerland

Phone: ***

Email: ***

With copies (which shall not constitute notice) to:

Novartis Venture Fund
100 Technology Square, Suite 3150
Cambridge, MA 02139
Attn: Campbell Murray
Email: ***

The parties are signing this Amended and Restated Investors' Rights Agreement as of the date stated in the introductory clause.

CLARUS LIFESCIENCES III, L.P.

By: Clarus Ventures III GP, LP, its general partner

By: Clarus Ventures III, LLC, its general partner

By: /s/ Emmett Cunningham
Name: Emmett Cunningham
Title: Managing Director

(*Signature page to the Amended and Restated Investors' Rights Agreement*)

The parties are signing this Amended and Restated Investors' Rights Agreement as of the date stated in the introductory clause.

SATTER MEDICAL TECHNOLOGY PARTNERS, L.P.

By: Satter Medical Technology GP, L.P.
Its: General Partner

By: Satter Medical Technology UGP, LLC
Its: General Partner

By: Muneer A. Satter Revocable Trust
Its: Managing Member

By: /s/ Muneer A. Satter
Name: Muneer A. Satter
Title: Trustee

Address:

c/o Satter Investment Management, LLC
676 North Michigan Avenue, Suite 4000
Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy (which shall not constitute notice) to:

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Attention: Ted H. Zook, P.C.
Jon-Micheal A. Wheat, P.C.

The parties are signing this Amended and Restated Investors' Rights Agreement as of the date stated in the introductory clause.

MUNEER A. SATTER REVOCABLE TRUST

By: /s/ Muneer A. Satter
Name: Muneer A. Satter
Title: Trustee

Address:

c/o Satter Investment Management, LLC
676 North Michigan Avenue, Suite 4000
Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy (which shall not constitute notice) to:

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Attention: Ted H. Zook, P.C.
Jon-Micheal A. Wheat

THE SATTER FOUNDATION

By: /s/ Muneer A. Satter
Name: Muneer A. Satter
Title: Trustee

Address:

c/o Satter Investment Management, LLC
676 North Michigan Avenue, Suite 4000
Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy (which shall not constitute notice) to:

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Jon-Micheal A. Wheat

(*Signature page to the Amended and Restated Investors' Rights Agreement*)

The parties are signing this Amended and Restated Investors' Rights Agreement as of the date stated in the introductory clause.

SIM - SCT INVESTMENT HOLDINGS, LLC

By: /s/ Muneer A. Satter
Name: Muneer A. Satter
Title: Manager

Address:

c/o Satter Investment Management, LLC
676 North Michigan Avenue, Suite 4000
Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy (which shall not constitute notice) to:

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Attention: Ted H. Zook, P.C.
Jon-Micheal A. Wheat

SIM - KHH INVESTMENT HOLDINGS, LLC

By: /s/ Muneer A. Satter
Name: Muneer A. Satter
Title: Manager

Address:

c/o Satter Investment Management, LLC
676 North Michigan Avenue, Suite 4000
Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy (which shall not constitute notice) to:

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Attention: Ted H. Zook, P.C.
Jon-Micheal A. Wheat

(*Signature page to the Amended and Restated Investors' Rights Agreement*)

The parties are signing this Amended and Restated Investors' Rights Agreement as of the date stated in the introductory clause.

SIM - ACWIT INVESTMENT HOLDINGS, LLC

By: /s/ Muneer A. Satter
Name: Muneer A. Satter
Title: Manager

Address:

c/o Satter Investment Management, LLC
676 North Michigan Avenue, Suite 4000
Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy (which shall not constitute notice) to:

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Attention: Ted H. Zook, P.C.
Jon-Micheal A. Wheat

SIM - RSFIT INVESTMENT HOLDINGS, LLC

By: /s/ Muneer A. Satter
Name: Muneer A. Satter
Title: Manager

Address:

c/o Satter Investment Management, LLC
676 North Michigan Avenue, Suite 4000
Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy (which shall not constitute notice) to:

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Attention: Ted H. Zook, P.C.
Jon-Micheal A. Wheat

(Signature page to the Amended and Restated Investors' Rights Agreement)

The parties are signing this Amended and Restated Investors' Rights Agreement as of the date stated in the introductory clause.

SIM - RSIT Investment Holdings, LLC

By: /s/ Muneer A. Satter
Name: Muneer A. Satter
Title: Manager

Address:

c/o Satter Investment Management, LLC
676 North Michigan Avenue, Suite 4000
Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy (which shall not constitute notice) to:

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Attention: Ted H. Zook, P.C.
Jon-Micheal A. Wheat

MILLENNIUM TRUST COMPANY CUSTODIAN FBO MUNEER A. SATTER IRA

By: /s/ Muneer A. Satter
Name: Muneer A. Satter

Address:

c/o Satter Investment Management, LLC
676 North Michigan Avenue, Suite 4000
Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy (which shall not constitute notice) to:

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Attention: Ted H. Zook, P.C.
Jon-Micheal A. Wheat

The parties are signing this Amended and Restated Investors' Rights Agreement as of the date stated in the introductory clause.

SIM-SFT Investment Holdings, LLC

By: /s/ Muneer A. Satter
Name: Muneer A. Satter
Title: Trustee

Address:

c/o Satter Investment Management, LLC
676 North Michigan Avenue, Suite 4000
Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy (which shall not constitute notice) to:

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Attention: Ted H. Zook, P.C.
Jon-Micheal A. Wheat

The parties are signing this Amended and Restated Investors' Rights Agreement as of the date stated in the introductory clause.

WS INVESTMENT COMPANY, LLC (2014A)
WS INVESTMENT COMPANY, LLC (2016A)
WS INVESTMENT COMPANY, LLC (2018A)

By: /s/ Ken Clark
Name: Ken Clark
Title: Member

(*Signature page to the Amended and Restated Investors' Rights Agreement*)

The parties are signing this Amended and Restated Investors' Rights Agreement as of the date stated in the introductory clause.

TRUST AGREEMENT OF EDWARD M SCOLNICK DATED SEPTEMBER 15, 2000, AS AMENDED

By: /s/ Edward M. Scolnick
Name: Edward M. Scolnick
Title: Trustee

By: /s/ Barbara B. Scolnick
Name: Barbara B. Scolnick
Title: Trustee

Address:

Edward M. Scolnick
1201 Magnolia Drive
Wayland, MA 01778

With a copy (which shall not constitute notice) to:

BNY Mellon, N.A., Trustee
c/o Kelly A. Gately – 024-0104
201 Washington Street
Boston, MA 02108

(*Signature page to the Amended and Restated Investors' Rights Agreement*)

EXHIBIT A

INVESTORS

Bain Capital Life Sciences Fund, LP
BCIP Life Sciences Associates, LP
200 Clarendon Street
Boston, MA 02116
Attention:

Jeffrey Schwartz
Melissa Danforth

With a copy (which shall not constitute notice) to:

Goodwin Procter LLP
620 8th Avenue
New York, NY 10019
Attention:
Paul N. Cicero

New Enterprise Associates 15, L.P.
1954 Greenspring Drive, Suite 600
Timonium, MD 21093
Attn: Louis Citron, General Counsel
Email: ***

NEA Ventures 2016, Limited Partnership
1954 Greenspring Drive, Suite 600
Timonium, MD 21093
Attn: Louis Citron, General Counsel
Email: ***

with a copy (which shall not constitute notice) to:

Greenberg Traurig, LLP
2101 L Street, N.W., Suite 1000
Washington, DC 20037
Attn: Trevor Chaplick
Fax: 202-331-3101
Email: ***

Citadel Multi-Strategy Equities Master Fund Ltd.
601 Lexington Ave.
New York, NY 10022
Attn: Noah Goldberg
Email: ***

with a copy (which shall not constitute notice) to:

Choate, Hall & Stewart LLP
Two International Place
Boston, MA 02110
Attn: Tobin P. Sullivan

Adage Capital Partners, LP
200 Clarendon Street, 52nd Flr.
Boston, MA 02116
Attn: Dan Lehan
Richard L. Solit
Email: ***

F-Prime Inc.
82 Devonshire Street, EPC13A
Boston, MA 02109-3614
Attn: Stacie Weninger

with a copy to (which shall not constitute notice):

Lawrence Wittenberg
Goodwin Procter LLP
Exchange Place
Boston, MA 02109

Novartis Bioventures Ltd.
Lichtstrasse 35
CH-4056 Basel, Switzerland
Phone: ***

With copies (which shall not constitute notice) to:

Novartis Venture Fund
355 Main Street
Cambridge, MA 02142
Attn: Campbell Murray
Email: ***

and

Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street
Boston, MA 02109
Attn: Jason L. Kropp
Fax: (617) 526-5000
Email: ***

Muneer A. Satter Revocable Trust
c/o Satter Investment Management, LLC
676 North Michigan Avenue, Suite 4000
Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy to (which shall not constitute notice):

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Attention: Ted H. Zook, P.C.
Jon-Micheal A. Wheat

The Satter Foundation
c/o Satter Investment Management, LLC
676 North Michigan Avenue, Suite 4000
Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy to (which shall not constitute notice):

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Chicago, Illinois 60654
Attention: Ted H. Zook, P.C.
Jon-Micheal A. Wheat

Satter Medical Technology Partners, L.P.
c/o Satter Investment Management, LLC
676 North Michigan Avenue, Suite 4000
Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy to (which shall not constitute notice):

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Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy to (which shall not constitute notice):

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Attention: Ted H. Zook, P.C.
Jon-Micheal A. Wheat

SIM—KHH Investment Holdings, LLC
c/o Satter Investment Management, LLC
676 North Michigan Avenue, Suite 4000
Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy to (which shall not constitute notice):

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with a copy to (which shall not constitute notice):

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Chicago, Illinois 60654
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Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy to (which shall not constitute notice):

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Attention: Ted H. Zook, P.C.
Jon-Micheal A. Wheat

Millennium Trust Company Custodian FBO Muneer A.
Satter IRA
c/o Satter Investment Management, LLC
676 North Michigan Avenue, Suite 4000
Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy to (which shall not constitute notice):

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Attention: Ted H. Zook, P.C.
Jon-Micheal A. Wheat

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Attention: Muneer A. Satter

with a copy to (which shall not constitute notice):

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Chicago, Illinois 60654
Attention: Ted H. Zook, P.C.
Jon-Micheal A. Wheat
Satter Medical Technology Partners, L.P.
c/o Satter Investment Management, LLC
676 North Michigan Avenue, Suite 4000
Chicago, Illinois 60610
Attention: Muneer A. Satter

with a copy to (which shall not constitute notice):

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Attention: Ted H. Zook, P.C.
Jon-Micheal A. Wheat

Clarus Lifesciences III, L.P.
101 Main Street
12th Floor
Cambridge, MA 02142

Attn: Robert Liptak, Managing Director
Phone: ***

The Board of Trustees of the Leland Stanford Junior
University (PVF)
635 Knight Way
Stanford, CA 94305-7297
Attn:Jeffrey Sefa-Boakye
Phone: ***

WS Investment Company, LLC
650 Page Mill Road
Palo Alto, CA 94304
Attn: Jim Terranova
Facsimile: ***
E-mail: ***

Trust Agreement of Edward M. Scolnick dated September
15, 2000, as amended
c/o Edward M. Scolnick
***

Arnon Rosenthal
***

Ben Barres
***

Alexander Stephan
***

Beth Stevens
***

SCHEDULE 1

NOTICE AND WAIVER/ELECTION OF RIGHT OF FIRST REFUSAL

I do hereby waive or exercise, as indicated below, my rights of first refusal under the Amended and Restated Investors' Rights Agreement dated as of December __, 2018 (the "*Agreement*"):

1. Waiver of 10 days' notice period in which to exercise right of first refusal: **(please check only one)**

   ( ) **WAIVE** in full, on behalf of all Holders, the 10-day notice period provided to exercise my right of first refusal granted under the Agreement.

   ( ) **DO NOT WAIVE** the notice period described above.

2. Issuance and Sale of New Securities: **(please check only one)**

   ( ) **WAIVE** in full the right of first refusal granted under the Agreement with respect to the issuance of the New Securities.

   ( ) **ELECT TO PARTICIPATE** in $_____ (*please provide amount)* in New Securities proposed to be issued by Annexon, Inc., a Delaware corporation, representing LESS than my *pro rata* portion of the aggregate of $_____ in New Securities being offered in the financing.

   ( ) **ELECT TO PARTICIPATE** in $_____ in New Securities proposed to be issued by Annexon Inc., a Delaware corporation, representing my FULL *pro rata* portion of the aggregate of $_____ in New Securities being offered in the financing.

   ( ) **ELECT TO PARTICIPATE** in my full *pro rata* portion of the aggregate of $_____ in New Securities being made available in the financing AND, to the extent available, the greater of (x) an additional $_____ (*please provide amount)* or (y) my *pro rata* portion of any remaining investment amount available in the event other Holders do not exercise their full rights of first refusal with respect to the $_____ in New Securities being offered in the financing.

Date:_____

_____
(*Print investor name*)

_____
(*Signature*)

_____
(*Print name of signatory, if signing for an entity*)

_____
(*Print title of signatory, if signing for an entity*)

This is neither a commitment to purchase nor a commitment to issue the New Securities described above. Such issuance can only be made by way of definitive documentation related to such issuance. Annexon, Inc. will supply you with such definitive documentation upon request or if you indicate that you would like to exercise your first offer rights in whole or in part.

Exhibit 10.2

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 Annexon_Inc. ("Annexon"), a corporation having a principal place of business at P.O. Box 610098 Redwood City California, USA 94061 is effective on the 21 day of Nov, 2011 ("Effective Date").

1 BACKGROUND

Stanford has assignments of inventions that describe a [***]. They are entitled [***] and [***] were invented in the laboratory of [***], and are described in Stanford Docket [***] and [***], respectively. The inventions were made in the course of research supported by the [***]. Stanford wants to have the inventions perfected and marketed as soon as possible so that resulting products may be available for public use and benefit.

2 DEFINITIONS

2.1 "Affiliates" means any person, corporation, or other business entity which controls, is controlled by, or is under common control with Annexon. For this purpose, "control" of a corporation means the direct or indirect ownership of more than 50% of its voting stock, and "control" of any other business entity means the direct or indirect ownership of greater than 50% interest in the income of such entity.

2.2 "Continuations-In-Part" means all continuation-in-part patent applications to the extent that

A) they cover technologies related to technologies disclosed in and supported by U.S. Serial No. [***] U.S. Serial No. [***] and any patentable subject matter described in Stanford Docket [***] or [***] as updated through to the Effective Date; and

B) Stanford and Annexon agree to file.

2.3 "Exclusive" means that, subject to Articles 3 and 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 Annexon'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 Annexon stock or stock option plan then in effect.

2.5 "Licensed Field of Use" means the prevention, diagnosis, companion diagnostics, treatment or control of any human or animal disease, disorder or condition, including the provision of any services or products to third parties for research or development of the foregoing.

2.6 "Licensed Patent" means Stanford's U.S. Serial No. [***] filed [***], U. S. Serial No. [***] filed [***], including any provisional applications, conversion applications, U.S. and foreign patent applications including any divisionals, Continuations-In-Part, continuations or reexaminations, and including any U.S. and foreign patents (including inventors' certificates) granted from any of the above patent applications, reexamination and reissues of the granted patents, and extensions of the granted patents. Notwithstanding the above, any post filing data owned by Stanford from the [***] and for which Stanford does not have any prior and conflicting contractual obligations, that to the best judgment of the patent attorney/agent prosecuting the application, and with can be entered into the application record as a declaration in support of an existing claim, will also be considered part of the Licensed Patent.

2.7 "Licensed Product" means a product the making, using, importing or selling of which infringes a Valid Claim in the country in which it is sold, used or made.

2.8 "Licensed Territory" means the world.

2.9 "Net Sales" means the total amount received by Annexon, its Affiliates or its sublicensees in connection with sales of the Licensed Product, after deduction of all the following to the extent applicable to such sales and are separately billed or documented:

(A) all trade, cash and quantity credits, discounts, refunds or rebates;

(B) allowances or credits for returns;

(C) import, export, excise and sales taxes (including value-added tax), custom duties and similar governmental charges;

(D) costs of insurance, packing and shipping;

(E) reasonable allowance for uncollectible accounts (provided that any such amounts that are actually collected will be included in Net Sales in the quarter in which they are collected); and

(F) rebates or discounts to social and welfare systems, chargebacks, government mandated discounts and similar types of rebates or discounts (for example, P.P.R.S., Medicaid).

For clarity, a physician, hospital or other healthcare provider who is not an Affiliate and who purchases a Licensed Product from Annexon, its Affiliate or a Sublicensee, shall not be deemed a sublicensee for determining Net Sales (i.e., even if such physician, hospital or healthcare provided is deemed to receive an implied sublicense to practice a method within the Licensed Patents by reason of its purchase of the Licensed Product).

2.10 “Stanford Indemnitees” means Stanford and Stanford Hospitals and Clinics, and their respective trustees, officers, employees, students, and agents.

2.11 “Sublicense” means any agreement between Annexon and a 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 Annexon is not considered a Sublicense. Notwistanding the above, assignment by Annexon to an Affiliate, or in connection with any merger, acquisition, reorganization or transfer of all or substantially all of Annexon’s stock, assets or business to which the Agreement relates is not considered a Sublicense.

2.12 “Sublicense Revenues” means [***] payments received by Annexon for a Sublicense. Sublicense Revenue excludes reimbursement for Annexon’s documented expenditures for research and development of Licensed Products, debt or equity investment, at fair market value, reimbursements of patent and patent related expenses.

For clarity, Sublicense Revenues shall not include amounts paid: (A) as bona fide loans; (B) for supplies of products or materials that are not Licensed Patents; (C) as reimbursements or funding for actual costs incurred or as funding for costs Annexon is obligated to incur in performing obligations under the Sublicense; (D) as dividends or profit distributions resulting from a profit sharing or a similar arrangement; and (E) Net Sales. To the extent Sublicense

Revenues represent an unallocated combined payment for both a Sublicense of the Licensed Patents as well as other intellectual property, undertakings or subject matter, the Sublicense Revenue from such sublicensing arrangement for calculating payments due to Stanford shall be discussed and agreed upon by Stanford and Annexon. Any disputes as to the calculation of Sublicense Revenue (including inability to agree on the above allocation), or the amount due under Section 4.6 below with respect thereto, shall be determined by arbitration under Article 18 below.

2.13 "Valid Claim" means a) any claim in an issued and unexpired patent included within the Licensed Patent that has not been held unenforceable, unpatentable or invalid by a decision of a court or other governmental agency of competent jurisdiction and which has not been admitted to be invalid or unenforceable through abandonment, reissue, disclaimer or otherwise, or b) a pending claim in a pending Licensed Patent application, provided that if such pending claim does not issue as a valid and enforceable claim within [***] years from its earliest priority date which is [***], such pending claim will cease to be a Valid Claim unless and until actually issued.

3 GRANT

3.1 **Grant.** Subject to the terms and conditions of this Agreement, Stanford grants Annexon an Exclusive license under the Licensed Patent, with the right to sublicense, to use, make and have made, sell, offer for sale, distribute, market, promote, import and export Licensed Products, and otherwise exploit the Licensed Patents, in the Licensed of Use Field and in the Licensed Territory. The license will expire on a country-by-country basis upon the last to expire of the Licensed Patent.

[***], at his sole discretion, may also provide samples of reagents and disclose, technical protocols and know how, related to or covered under the Licensed Patent provided that Stanford possesses any available quantities of the requested reagents which are not needed for its own research purposes to third parties, including Annexon. If such items are provided to Annexon, Annexon [***]. If needed, Annexon may disclose such items to actual and potential investors and partners, who will keep the information confidential.

3.2 **Exclusivity.** The license is Exclusive, including the right to sublicense under Article 4, in the Licensed Field of Use until the last Licensed Patent expires.

3.3 **Retained Rights.** Stanford retains the right, on behalf of itself and all other non-profit academic research institutions, to practice the Licensed Patent for any non-profit purpose, including sponsored research and collaborations. Annexon 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 Annexon 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 Annexon to bring suit against third parties for infringement, except as described in Article 15; and

(C) agree to furnish to Annexon any technology or technological information or to provide Annexon with any assistance.

4 SUBLICENSING

4.1 **Permitted Sublicensing.** Annexon may grant and authorize Sublicenses in the Licensed Field of Use [***] and [***]. Sublicenses with any exclusivity must include diligence requirements commensurate with the diligence requirements of Appendix A. Stanford agrees that Annexon may apportion a commercially reasonable percentage of sublicensing payments made to Stanford pursuant to Section 4.6, provided however that Annexon provides Stanford with the proposed apportionment and justification prior Annexon's payment pursuant to Section 8.1. Stanford and Annexon 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 Annexon is unable, unwilling or has no strategic plans to serve or develop a potential market or market territory for which there is a Annexon willing to be a sublicensee, Annexon will, [***] with any such sublicensee. If Annexon plans to seek approval for an additional indication of a Licensed Product that a potential sublicensee is interested in sublicensing, Annexon is not required to negotiate a sublicense with the interested party. Stanford would like Annexon 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 subordinate to this Agreement;

(B) will reflect that any sublicensee will not further sublicense, unless, at its sole discretion, Stanford agrees to this in writing; provided that the sublicensee may further sublicense to an Affiliate and to others in connection with the sublicensee's development and/or sublicensee's commercialization of a Licensed Product (for example, in another territory such as Japan), and in each case where the sublicensee remains responsible for actions or inactions of such further sublicensee;

(C) will prohibit sublicensee from paying royalties to an escrow or other similar account, unless Annexon pays to Stanford for all royalties due hereunder on Net Sales by the sublicensee;

(D) will expressly include the provisions of Articles 10, 11 and 12 for the benefit of Stanford;

(E) will include the provisions of Section 4.4 and will survive termination of this Agreement, provided that the sublicensee is required to assume all obligations, including the payment of royalties, specified in this Agreement to the extent such obligations apply to the sublicensee, to Stanford or its designee, if this Agreement is terminated, all as further described in Section 16.3 below. If the sublicensee is a spin-out from Annexon, such spin-out will have an agreement with Annexon that enforces all the Sublicense Requirements including the payment of Stanford's share of Sublicense royalties

4.4 **Litigation by Sublicensee.** Any sublicense must include the following clauses with respect to any Licensed Patent sublicensed to the sublicensee:

(A) In the event sublicensee brings an action seeking to invalidate any such Licensed Patent:

(1) sublicensee will [***] with respect to such Licensed Patent 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 [***] with respect to such Licensed Patent under the original sublicense;

(2) sublicensee will have no right to recoup by reason of such action 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;

(4) sublicensee shall not pay royalties into any escrow or other similar account, to the extent prohibited under Section 4.3(C) above.

(B) Sublicensee will provide written notice to Stanford at least [***] 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.** Annexon will submit to Stanford a copy of each Sublicense after it had been executed. Such Sublicense may be redacted to omit confidential information not necessary to establish compliance with this Agreement. Such Sublicense, and all information provided under Section 6.2 or Article 7 below, shall be held in confidence by Stanford and Stanford shall not disclose such agreement or information without Annexon's consent. Beginning with the first Sublicense, the [***] will certify [***] regarding the name and number of sublicensees.

4.6 **Sharing of Sublicensing Income.** Annexon will pay Stanford a percentage of the Sublicense Revenues received by Annexon from a sublicensee that is specifically attributable to any sublicense of a Licensed Patent as follows:

(A) [***] percent ([***]%) of Sublicense Revenues received prior to the [***]; and

(B) [***] percent ([***]%) of Sublicense Revenues received after [***]. For such purposes, [***].

If Sublicense Revenues are received by Annexon in the form of securities in another entity, Annexon and Stanford will discuss and agree on an appropriate sharing of the securities or equivalent compensation to Stanford.

Payments due pursuant to this Section 4.6 for a milestone under a Sublicense may be offset against any payments due thereafter pursuant to milestones (A) and (B) under Section 7.9. Notwithstanding any of the foregoing, the total of all payments due pursuant to this Section 4.6 from the same sublicensee (or its affiliate) shall not exceed a total of [***] United States Dollars (US$[***]).

4.7 **Royalty-Free Sublicenses.** If Annexon pays [***] due Stanford from a sublicensee's Net Sales, Annexon 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.” Annexon 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, Annexon will use diligent efforts to develop, manufacture, and sell Licensed Product and to develop markets for Licensed Product. In addition, Annexon will meet the milestones shown in Appendix A, and notify Stanford in writing as each milestone is met. Any efforts of a sublicensee will be deemed efforts of Annexon for purposes of satisfying its obligations under this Section 6.1 and Appendix A, except for milestone (e) listed in Appendix A.

6.2 **Progress Report.** By March 1 of each year, Annexon 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 Annexon toward meeting this Agreement’s diligence requirements. Each report will describe, where relevant: Annexon’s progress toward commercialization of Licensed Product, including work completed, key scientific discoveries, summary of work-in-progress, current schedule of anticipated events or milestones, expected timelines for introduction of Licensed Product, and significant corporate transactions involving Licensed Product. Stanford will keep the Progress Report confidential and will not use it except for the purpose described in this section 6.2.

6.3 **Clinical Trial Notice.** Annexon will notify Stanford prior to commencing any clinical trials at Stanford.

7 ROYALTIES

7.1 **Issue Royalty.** Annexon will pay to Stanford a noncreditable, nonrefundable license issue royalty of $[***] upon signing this Agreement.

7.2 **Equity Interest.** As further consideration, Annexon will grant to Stanford shares of preferred stock in Annexon upon closing of the first bona fide financing event raising at least $[***] from one or more venture capital firms. When issued, those shares will represent stock in Annexon on a Fully Diluted Basis that equals a post financing value equal to $[***]. Annexon agrees to provide Stanford

with the capitalization table upon which the above calculation is made. Annexon will issue [***]% of all shares pursuant to this Section 7.2 and Section 7.3 directly to and in the name of the inventors listed below; Stanford will provide the inventor allocation later.

[***]

7.3 **Anti-Dilution Protection.** The anti-dilution terms will be stipulated in the Series A financing and will not be any different from any other preferred equity shareholders.

7.4 **[***]% Purchase Right.** In any private offering of Annexon's equity securities for cash (or in satisfaction of debt issued for cash), Stanford may purchase for cash up to [***]% of the securities issued in such offering. This right will expire following the first round of bona fide equity investment in Annexon from a single or group of investors which either (i) is at least $[***] in size or (ii) involves the sale to outside investors of at least [***]% of the shares outstanding after such round on a Fully-Diluted Basis, but will apply to all shares to be issued in such round. This right is in addition to Stanford's rights under Section 7.3.

7.5 **Future Offerings.** In any private offering of Annexon's equity securities in exchange for cash (or in satisfaction of debt issued for cash), Stanford may purchase for cash that percentage of the securities issued in such offering as is equal to Stanford's percentage ownership of Annexon' outstanding shares immediately prior to the closing of such offering, on a Fully Diluted Basis, and such purchase shall be subject to the same terms and conditions as other investors in such offering (as described in and subject to Section 7.6 below). This right is in addition to Stanford's rights under Section 7.4. If both Section 7.4 and this 7.5 apply to an offering, the provision granting Stanford the greater purchase rights will govern.

7.6 **Purchase Terms and Procedure, Exceptions; Public Offering.** In any offering subject to Section 7.4 or 7.5, (i) Stanford's purchase right shall be on the same terms as the other investors in the financing in question, except that Stanford [***], (ii) Annexon will give Stanford notice of the terms of the offering, and Stanford may elect to exercise its right of purchase, in whole or in part, by notice given to Annexon within [***] after receipt of Annexon's notice and (iii) if Stanford elects not to purchase, or fails to give an election notice within such

period, Stanford's purchase right will not apply to the offering if (and only if and to the extent) it is consummated within [***] days on the same or less favorable (to the investor) terms as stated in Annexon's notice to Stanford. Stanford's rights under Sections 7.4 and 7.5 will not apply to the issuance of stock to founders, employees and other service providers pursuant to a plan or grant approved by Annexon's board of directors, or to shares issued as additional consideration in lending or leasing transactions In the event of the closing of a firm commitment underwritten public offering, the rights granted in Sections 7.4 and 7.5 will terminate (in addition to any earlier termination pursuant to their terms) immediately before such closing.

7.7 **Repurchase Obligation.** If Stanford is to conduct any clinical trial on behalf of Annexon or any agent of Annexon, Annexon will repurchase all Stanford's equity interest in Annexon. Annexon cannot begin any such trial until Stanford no longer holds any equity interest in Annexon. The repurchase price for any such equity interest will be the affair market value for that equity at the time Annexon and Stanford enter into a definitive agreement under which any such clinical research will be performed. Fair market value of publicly traded equity instruments will be determined by taking [***]. Fair market value of non-public equity instruments will be at least as high as the greater of: [***]

7.8 **License Maintenance Fee.** Annexon will pay Stanford a yearly license maintenance fee of:

(A) $[***] on the [***] of the Effective Date;

(B) [***] on the [***] of the Effective Date and each [***] thereafter until the earlier of [***] or the [***] of the Effective Date; and then

(C) $[***] thereafter.

(D) Yearly maintenance payments are nonrefundable, but they are creditable each year as described in Section 7.12.

7.9 **Milestone Payments.** Annexon will pay Stanford the following one-time milestone payments:

(A) Annexon raising $[***] in funding or [***], whichever occurs

earlier $[***];

(B) For the first Licensed Product that achieves the following:

[***]

(C) It is understood that the total amounts due under this Section 7.9 shall not exceed $[***] in the aggregate.

7.10 **Earned Royalty.**

(A) Annexon will pay Stanford earned royalties on Net Sales as follows [***]% on Net Sales of a Licensed Product.

(B) No royalty shall be payable under this Section 7.10 with respect to the sale of units of Licensed Products among Annexon, its Affiliates, and sublicensees, provided that royalties shall be due with respect to the subsequent resale of such units of Licensed Products to non-Affiliate third parties.

(C) In the event that a Licensed Product is sold for a single combined price with another product, component, or service that would not be a Licensed Product if sold or used separately, then Net Sales from such combination sales for purposes of calculating the amounts due under this Section 7.10 shall be reasonably allocated, as determined in good faith by Annexon and Stanford, between such Licensed Product and such other product, components, and services based upon their relative importance, value, cost and proprietary protection as commercially reasonable. If Annexon and Stanford have not agreed upon such allocation or fair market value, respectively, either party shall have the right to submit the matter for resolution by binding arbitration in accordance with Article 18 below.

(D) No more than one royalty shall be due with respect to a sale of a unit of a particular Licensed Product under this Agreement. No multiple royalties shall be payable because any Licensed Product, or its manufacture, sale or use is covered by more than one Valid Claim.

7.11 **Earned Royalty if Annexon Challenges the Patent.** Notwithstanding the above, should Annexon bring an action seeking to invalidate any Licensed Patent, Annexon will pay royalties to Stanford [***]. Moreover, should the outcome of such action determine that any claim of a patent challenged by Annexon is both valid and infringed by a Licensed Product, Annexon will pay royalties [***].

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 Annexon pays Stanford a $10 maintenance payment for year Y, and according to Section 7.10 $15 in earned royalties are due Stanford for Net Sales in year Y, Annexon will only need to pay Stanford an additional $5 for that year's earned royalties.

(B) if Annexon pays Stanford a $10 maintenance payment for year Y, and according to Section 7.10 $3 in earned royalties are due Stanford for Net Sales in year Y, Annexon will not need to pay Stanford any earned royalty payment for that year. Annexon will not be able to offset the remaining $7 against a future year's earned royalties.

7.13 **Obligation to Pay Royalties.** A royalty is due Stanford under this Agreement for any activity conducted under the licenses granted. For convenience's sake, the amount of that royalty is calculated using Net Sales. 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, Annexon will pay Stanford an earned royalty for its exercise of rights based on the Net Sales of those Licensed Products.

7.14 **No Escrow.** Annexon shall not pay royalties into any escrow or other similar account.

7.15 **Currency.** Annexon 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 foreign exchange desk, on the close of business on the last banking day of each calendar quarter. Annexon will make royalty payments to Stanford in U.S. Dollars.

7.16 **Non-U.S. Taxes.** Annexon 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) [***] 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 sale of a Licensed Product, Annexon will submit to Stanford a written report (even if there are no sales) and an earned royalty payment within [***] days after the end of each calendar quarter. This report will be in the form of Appendix B

and will state the [***] during the completed calendar quarter. With each report Annexon will include any earned royalty payment due Stanford for the completed calendar quarter (as calculated under Section 7.10).

8.2 **No Refund.** In the event that a validity or non-infringement challenge of a Licensed Patent brought by Annexon is successful, Annexon will have no right to recoup any royalties paid before or during the period challenge.

8.3 **Termination Report.** Annexon will pay to Stanford all applicable royalties and submit to Stanford a written report within [***] days after the license terminates. Annexon 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.** Annexon will maintain records showing manufacture, importation, sale, and use of a Licensed Product for [***] 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.** Annexon will allow Stanford or its designee to examine Annexon's records to verify payments made by Annexon 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 [***]% or more for the period being audited, Annexon will pay the audit costs.

8.7 **Self-audit.** If Annexon conducts an independent audit of sales and royalties due from a sublicensee for a [***] in which [***] sales of Licensed Product are over $[***], then to the extent the audit will address, the amount of gross sales by or on behalf of Annexon's sublicensee 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 the Annexon, Annexon will submit the auditor's report promptly to Stanford upon completion and acceptance by Annexon. As between the parties, Annexon [***] of the audit.

9 WARRANTIES.

As of the Effective Date, Stanford's Office of Technology Licensing (OTL) confirms to Annexon that (i) Stanford has an assignment to the Licensed Patents; and (ii) Stanford has not previously granted, and will not grant, any rights to the Licensed Patents that are inconsistent with the rights and licenses granted to Annexon under this Agreement; and (iii) Stanford is not aware of any claim that a third party is an owner or co-inventor of any of the Licensed Patents.

10 EXCLUSIONS AND NEGATION OF WARRANTIES

10.1 **Negation of Warranties.** Except as provided in Article 9, Stanford provides Annexon 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.

10.2 **No Representation of Licensed Patent.** Annexon also acknowledges that Stanford does not represent or warrant:

(A) the validity or scope of any Licensed Patent, or

(B) that the exploitation of Licensed Patent will be successful.

11 INDEMNITY

11.1 **Indemnification.** Annexon will indemnify, hold harmless, and defend all Stanford Indemnitees against any claim of any kind arising out of or related to the exercise of any rights granted Annexon under this Agreement or the breach of this Agreement by Annexon, other than claims arising out of a breach by Stanford of this Agreement.

11.2 **No Indirect Liability.** Stanford is not liable for any special, consequential, lost profit, indirect 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.

11.3 **Workers' Compensation.** Annexon will comply with all statutory workers' compensation and employers' liability requirements for activities performed under this Agreement.

11.4 **Insurance.** During the term of this Agreement Annexon will maintain Comprehensive General Liability Insurance with a reputable and financially secure insurance carrier to cover the activities of Annexon, its Affiliates and its sublicensees. The insurance will provide minimum limits of liability of [***] and will include [***].

This minimum will be increased to [***] and Annexon will add Product Liability Insurance [***] month before the introduction of a Licensed Product into humans. Insurance must cover claims [***] and must be placed with carriers with ratings of at least [***]. Within [***] days of the Effective Date of this Agreement, Annexon will furnish a Certificate of Insurance evidencing primary coverage and additional insured requirements. Annexon will provide to Stanford [***] days prior written notice of cancellation or material change to this insurance coverage. Annexon 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 Annexon will be primary coverage; insurance of [***] will be excess and noncontributory.

12 EXPORT

Annexon 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 US 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 US 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. Annexon 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.

13 MARKING

Before any Licensed Patent issues, Annexon will mark Licensed Product with the words “Patent Pending.” Otherwise, Annexon will mark Licensed Product with the number of any issued Licensed Patent.

14 NAMES AND MARKS

Annexon will not identify Stanford in any promotional statement, or otherwise use the name of any Stanford faculty member, employee, or student, or any trademark, service mark, trade name, or symbol of Stanford or Stanford Hospitals and Clinics, including the Stanford name, unless Annexon has received Stanford's prior written consent. Permission may be withheld at Stanford's sole discretion. Notwithstanding the above, Annexon will have the rights to disclose that it has licensed the Licensed Patents from Stanford to any shareholders, and potential or actual employees, consultants, investors, business partners, collaborators or contract service organizations of Annexon as is reasonable and customary for purposes of describing its business.

15 PROSECUTION AND PROTECTION OF PATENTS

15.1 **Patent Prosecution.** Annexon will be responsible for and control preparing, filing, and prosecuting broad patent claims (including any interference or reexamination actions) for Stanford's benefit in the Licensed Territory and for maintaining all Licensed Patents. Stanford will be notified before taking any substantive actions in prosecuting the claims, and Stanford will have final approval on how to proceed with any such actions. To aid Annexon in this process, Stanford will provide information, execute and deliver documents and do other acts as Annexon shall reasonably request from time to time. Annexon [***]. The parties will agree from time to time as to which countries the Licensed Patents will be filed and maintained, it being understood that except as so agreed, Annexon shall not be obligated to prosecute or maintain Licensed Patents in jurisdictions other than the [***]. It is understood that, the parties will mutually agree upon counsel to prosecute the Licensed Patents; thereafter upon request by Annexon the Parties shall replace such counsel with alternative counsel reasonably approved by Annexon.

15.2 **Patent Costs.** Within [***] days after receiving a statement from Stanford, Annexon will reimburse Stanford for all Licensed Patent's patenting expenses incurred by Stanford after the Effective Date. In all instances, Stanford will pay the fees prescribed for [***] to the United States Patent and Trademark Office.

15.3 **Patent Enforcement.** Under the license, Annexon (itself or through its designee) will have the first right, but not the obligation, to seek to remove or remedy any third party infringement of the Licensed Patents so long as it conforms with the requirements of this section and Annexon is [***]. Annexon will keep Stanford reasonably apprised of all material developments in the suit, and will seek Stanford's input on any substantive submissions or positions taken in the litigation regarding the

scope, validity and enforceability of the Licensed Patents. Annexon will not prosecute, settle or otherwise compromise any such suit in a manner that materially adversely affects Stanford's interests without Stanford's prior written consent, which consent shall not be unreasonably withheld or delayed. Stanford may be named as a party in any suit only if:

(A) Stanford is not the first named party in the action; and

(B) the pleadings and any public statements about the action state that Annexon is pursuing the action and that Annexon has the right to join Stanford as a party.

15.4 **Recovery.** If Annexon brings suit against or settles with a third party infringer, 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 [***], and Annexon will pay Stanford [***]; and

(B) Any payment for future sales [***].

15.5 **Joint Suit.** If Stanford and Annexon so agree, they may institute suit jointly. If so, they will:

(A) prosecute the suit in both their names;

(B) bear the out-of-pocket costs equally or as otherwise agreed;

(C) share any recovery or settlement equally or as otherwise agreed; and

(D) agree how they will exercise control over the action.

15.6 **Stanford Suit.** If Annexon does not institute a suit per Section 15.3, Stanford may institute suit, and may name Annexon as a party for standing purposes. If Stanford decides to institute suit, it will notify Annexon in writing at least [***] days before initiating such suit. If Annexon does not notify Stanford in writing that it desires to jointly prosecute the suit within [***] days after the date of the notice, Annexon 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.

15.7 **Abandonment of Suit.** If either Stanford or Annexon 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 Annexon agree on the sharing of expenses and any recovery in the suit. For such purposes to "abandon" a suit means to abandon such suit with prejudice and without any settlement agreement with the adverse party.

16 TERMINATION

16.1 **Termination by Annexon.** Annexon may terminate this Agreement, in its entirety or as to a particular Licensed Patent or Licensed Product, by giving Stanford written notice at least 30 days in advance of the effective date of termination selected by Annexon. In the event of a termination of this Agreement with respect to a particular Licensed Patent, the same shall cease to be a Licensed Patent in such country for all purposes of this Agreement, and similarly if this Agreement is terminated as to a particular Licensed Product, the same shall cease to be a Licensed Product for all purposes of this Agreement.

16.2 **Termination by Stanford.**

(A) Subject to Section 18, Stanford may also terminate this Agreement if Annexon:

(1) is delinquent on any report or payment;

(2) is not diligently developing and commercializing Licensed Product in accordance with Section 6.1 above;

(3) misses a milestone described in Appendix A;

(4) is in breach of any provision; or

(5) provides any false report.

(B) Subject to Article 18 below, termination under this Section 16.2 will take effect 45 days after written notice by Stanford unless Annexon remedies the problem in that 45-day period.

16.3 **Surviving Provisions.** Surviving any termination or expiration are:

(A) Annexon’s obligation to pay royalties accrued or accruable prior to the termination;

(B) any claim of Annexon or Stanford, accrued or to accrue, because of any breach or default by the other party; and

(C) the provisions of Articles 8, 10, 11 and 12 and to the extent such provision by its nature is intended to survive.

(D) Sublicenses existing at the time of termination shall survive, subject to Section 4.3(E) above, and provided that the sublicensee agrees to enter into a license agreement with Stanford on the same terms and conditions as are set forth in this Agreement, except that the scope of the sublicensee’s rights

with respect to the Licensed Patents shall not be broader than as set forth in its Sublicense with Annexon, and Sections 7.2, 7.3 and 4.6 above shall not apply to the sublicensee. In the event of a dispute between the sublicensee and the Stanford regarding the retention by the sublicensee of its rights, or the terms of the agreement between Stanford and the sublicensee shall be determined by arbitration under Article 18 below. Any obligations satisfied by Annexon prior to such termination (for example, satisfaction of milestone payments under Section 7.9) shall be deemed to have been satisfied for purposes of the agreement between Stanford and the sublicensee.

17 ASSIGNMENT

The Agreement may not be assigned without the prior written consent of the other party, but no consent will be required for any assignment by Annexon to an Affiliate, or in connection with any merger, acquisition, reorganization or transfer of all or substantially all of Annexon's stock, assets or business to which the Agreement relates. If Stanford has realized a gain of at least [***] in cash or securities from a liquidation event of Annexon stock , then no assignment fee is due hereunder. Otherwise Annexon will pay to Stanford [***] upon an assignment to a third party. Upon a permitted assignment of this Agreement, Annexon will be released of liability under this Agreement and the term "Annexon" in this Agreement will mean the assignee.

18 ARBITRATION

18.1 **Dispute Resolution by Arbitration.** Any dispute between the parties regarding any payments made or due under this Agreement, or the interpretation, enforcement, breach or validiy of this Agreement will be settled by arbitration in accordance with the JAMS Arbitration Rules and Procedures.

18.2 **Request for Arbitration.** Either party may request such arbitration. Stanford and Annexon will mutually agree in writing on a third party arbitrator within [***] days of the arbitration request; and if the parties cannot agree within such time, the arbitrator shall be selected in accordance with the applicable JAMS rules for such selection (or if none are so applicable, by the Chief Executive Officer of JAMS). The arbitrator's decision will be final and nonappealable and may be entered in any court having jurisdiction.

18.3 **Discovery.** The parties will be entitled to discovery as if the arbitration were a civil suit in the California Superior Court; provided that the arbitrator may limit the scope, time, and issues involved in discovery. In the event of a dispute as to whether this Agreement has been breached or may be terminated under Article 16, the Agreement shall not be terminated unless the arbitrator determines in a written decision delivered to the parties under this Article 18 that this Agreement

was materially breached, and the breaching Party fails to cure such breach within [***] days after such determination, or if not curable during such period, within a reasonable period to be determined by the arbitrator. The parties shall use their best efforts to ensure that a written decision by the arbitrator is provided within [***] days of any notice of termination per Article 16. If the arbitrator is not selected within [***] days from written notice, the Agreement may be terminated provided that Stanford has used its best efforts to facilitate such selection within such time period.

18.4 **Place of Arbitration.** The arbitration will be held in San Francisco, California unless the parties mutually agree in writing to another place.

18.5 **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.

19 NOTICES

19.1 **Legal Action.** Annexon will provide [***]. Annexon will include [***].

19.2 **All Notices.** All notices under this Agreement are deemed fully given when written, addressed, and sent as follows:

All general notices to Annexon are mailed to:

Name: [***]

Address: P.O. Box 610098

Redwood City

California, USA 94061

Email: [***]

All financial invoices to Annexon (i.e., accounting contact) are e-mailed to:

Name: [***]

Email: [***]

All progress report invoices to Annexon (i.e., technical contact) are e-mailed to:

Name: [***]

Email: [***]

All general notices to Stanford are e-mailed or mailed to:

Office of Technology Licensing
1705 El Camino Real
Palo Alto, CA 94306-1106
[***]

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
1705 El Camino Real
Palo Alto, CA 94306-1106
[***]

Either party may change its address with written notice to the other party.

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 **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. Annexon submits to the jurisdiction of such courts, and waives any claim that such a court lacks jurisdiction over Annexon or constitutes an inconvenient or improper forum.

20.4 **Headings.** No headings in this Agreement affect its interpretation.

20.5 **Electronic Copy.** 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 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	Director, Technology Licensing
Date	Nov 21, 2011

ANNEXON, INC.

Signature	/s/ Arnon Rosenthal PhD
Name	Arnon Rosenthal PhD
Title	President
Date	Nov 21, 2011

APPENDIX A

Diligence Milestones

[***]

APPENDIX B

SAMPLE REPORTING FORM

[***]

BRITANNIA LIFE SCIENCE CENTER

LEASE

This Lease (the "**Lease**"), dated as of the date set forth in Section 1 of the Summary of Basic Lease Information (the "**Summary**"), below, is made by and between **BAYSIDE ACQUISITION, LLC,** a Delaware limited liability company ("**Landlord**"), and **ANNEXON, INC.**, a Delaware corporation ("**Tenant**").

SUMMARY OF BASIC LEASE INFORMATION

TERMS OF LEASE		DESCRIPTION
1.	Date:	December 19, 2016
2.	Premises (Article 1).	
	2.1 Building:	180 Kimball Way South San Francisco, California 94080 Containing approximately 60,951 rentable square feet of space ("**RSF**")
	2.2 Premises:	Approximately 12,316 rentable square feet of space consisting of the entire second (2nd) floor of the Building, as further set forth in **Exhibit A** to the Lease.
3.	Lease Term (Article 2).	
	3.1 Length of Term:	Approximately seven (7) years.
	3.2 Lease Commencement Date:	The earlier to occur of (i) the date upon which Tenant first commences to conduct business in the Premises, and (ii) the date that occurs seven (7) days following the date upon the Premises are "Ready for Occupancy" as that term is defined in the Tenant Work Letter, attached to the Lease as **Exhibit B**, which Lease Commencement Date is anticipated to be July 1, 2017.
	3.3 Lease Expiration Date:	If the Lease Commencement Date shall be the first day of a calendar month, then the day immediately preceding the seventh (7th) anniversary of the Lease Commencement Date; or, if the Lease Commencement Date shall be other than the first day of a calendar month, then the last day of the month in which the seventh (7th) anniversary of the Lease Commencement Date occurs.

4. Base Rent (Article 3):

Lease Year	Annual Base Rent	Monthly Installment of Base Rent	Approximate Monthly Base Rent per Rentable Square Foot
1	$657,674.40	$54,806.20	$4.45
2	$680,693.00	$56,724.42	$4.61
3	$704,517.26	$58,709.77	$4.77
4	$729,175.36	$60,764.61	$4.93
5	$754,696.50	$62,891.38	$5.11
6	$781,110.88	$65,092.57	$5.29
7	$808,449.76	$67,370.81	$5.47

* **Note** : Tenant shall have no obligation to pay any Base Rent for the Premises attributable to the first two (2) full calendar months of the Lease Term (the "**Base Rent Abatement Period**"); provided, however, Tenant shall be required to pay Tenant's Share of Direct Expenses attributable to such period, as well as for all utilities and other services.

5. Tenant Improvement Allowance **(Exhibit B):** An amount equal to $192.00 per rentable square foot of the Premises (*i.e.*, $2,364,672.00 based upon 12,316 rentable square feet in the Premises).

6. Tenant's Share (Article 4): 20.21%.

7. Permitted Use (Article 5): The Premises shall be used only for general office, research and development, engineering, lab scale manufacturing, vivarium, laboratory, storage and/or warehouse uses, including, but not limited to, administrative offices and other lawful uses reasonably related to or incidental to such specified uses, all (i) consistent with first class life sciences projects in South San Francisco, California ("**First Class Life Sciences Projects**"), and (ii) in compliance with, and subject to, applicable laws and the terms of this Lease.

8. Letter of Credit (Article 21): $134,741.62.

9. Parking (Article 28): 2.8 unreserved parking spaces per 1,000 rentable square feet, subject to the terms of Article 28 of the Lease.

10.	Address of Tenant (Section 29.18):	280 Utah Avenue South San Francisco, CA 94080 Attention: Chief Executive Officer (Prior to Lease Commencement Date) and The Premises Attention: Chief Executive Officer (After Lease Commencement Date)
11.	Address of Landlord (Section 29.18):	See Section 29.18 of the Lease.
12.	Broker (Section 29.24):	CBRE, Inc.

1. PREMISES, BUILDING, PROJECT, AND COMMON AREAS

1.1 **Premises, Building, Project and Common Areas**.

1.1.1 **The Premises**. Landlord hereby leases to Tenant and Tenant hereby leases from Landlord the premises set forth in Section 2.2 of the Summary (the "**Premises**"). The outline of the Premises is set forth in **Exhibit A** attached hereto. The outline of the "Building" and the "Project," as those terms are defined in Section 1.1.2 below, are further depicted on the Site Plan attached hereto as **Exhibit A-1**. The parties hereto agree that the lease of the Premises is upon and subject to the terms, covenants and conditions herein set forth, and Tenant covenants as a material part of the consideration for this Lease to keep and perform each and all of such terms, covenants and conditions by it to be kept and performed and that this Lease is made upon the condition of such performance. The parties hereto hereby acknowledge that the purpose of **Exhibit A** is to show the approximate location of the Premises only, and such Exhibit is not meant to constitute an agreement, representation or warranty as to the construction of the Premises, the precise area thereof or the specific location of the "Common Areas," as that term is defined in Section 1.1.3, below, or the elements thereof or of the accessways to the Premises or the "Project," as that term is defined in Section 1.1.2, below. Except as specifically set forth in this Lease and in the Tenant Work Letter attached hereto as **Exhibit B** (the "**Tenant Work Letter**"), Landlord shall not be obligated to provide or pay for any improvement work or services related to the improvement of the Premises. Tenant also acknowledges that neither Landlord nor any agent of Landlord has made any representation or warranty regarding the condition of the Premises, the Building or the Project or with respect to the suitability of any of the foregoing for the conduct of Tenant's business, except as specifically set forth in this Lease and the Tenant Work Letter. Landlord shall deliver the Premises to Tenant in good, vacant, broom clean condition, and otherwise in the same condition as of the date of this Lease, in compliance with all Applicable Laws, with the roof water-tight and shall cause the plumbing, electrical systems, fire sprinkler system, lighting, and all other building systems serving the Premises, including the Generator, in good operating condition and repair on or before the Lease Commencement Date, or such earlier date as Landlord and Tenant mutually agree. Landlord will be responsible for causing the exterior of the Building, the existing Building entrances, and all exterior Common Areas (including required striping and handicapped spaces in the parking areas) to be in compliance with ADA and parking requirements, to the extent required to allow the legal occupancy of the Premises or completion of the Tenant Improvements.

1.1.2 **The Building and The Project**. The Premises constitutes a portion of the building set forth in Section 2.1 of the Summary (the "**Building**"). The Building is part of an office/laboratory project currently known as "Britannia Life Science Center." The term "**Project**," as used in this Lease, shall mean (i) the Building and the Common Areas, (ii) the land (which is improved with landscaping, parking facilities and other improvements) upon which the Building and the Common Areas are located, (iii) the other office/laboratory buildings located at Britannia Life Science Center, and the land upon which such adjacent office/laboratory buildings are located, and (iv) at Landlord's discretion, any additional real property, areas, land, buildings or other improvements added thereto outside of the Project (provided that any such additions do not increase Tenant's obligations under this Lease).

1.1.3 **Common Areas**. Tenant shall have the non-exclusive right to use in common with other tenants in the Project, and subject to the rules and regulations referred to in Article 5 of this Lease, those portions of the Project which are provided, from time to time, for use in common by Landlord, Tenant and any other tenants of the Project, which shall include the shipping and receiving area in the Building (such areas, together with such other portions of the Project designated by Landlord, in its discretion, are collectively referred to herein as the "**Common Areas**"). Landlord shall maintain and operate the Common Areas, including all sprinkler and other systems serving the Common Areas, in a first class manner, and the use thereof shall be subject to such rules, regulations and restrictions as Landlord may reasonably make from time to time. Landlord reserves the right to close temporarily, make alterations or additions to, or change the location of elements of the Project and the Common Areas, provided that in connection therewith Landlord will use commercially reasonable efforts to minimize any interference with Tenant's use of and access to the Premises and parking areas.

1.2 **Rentable Square Feet of Premises**. The rentable square footage of the Premises is hereby deemed to be as set forth in Section 2.2 of the Summary, and shall not be subject to measurement or adjustment during the Lease Term.

1.3 **Existing Lease**. Landlord represents that (a) the Premises are currently leased to COUNSYL, INC., a Delaware corporation, (b) such lease has been terminated or is scheduled to expire as to the Premises as of January 16, 2017 and (c) Landlord shall use commercially reasonable efforts to cause such tenant to vacate the Premises on or promptly following such date, provided that if Landlord is unable for any reason to deliver possession of the Premises to Tenant on any specific date, then Landlord shall not be subject to any liability for its failure to do so, and such failure shall not affect the validity of this Lease or the obligations of Tenant hereunder.

2. LEASE TERM; OPTION TERM

2.1 **Lease Term**. The terms and provisions of this Lease shall be effective as of the date of this Lease. The term of this Lease (the "**Lease Term**") shall be as set forth in Section 3.1 of the Summary, shall commence on the date set forth in Section 3.2 of the Summary (the "**Lease Commencement Date**"), and shall terminate on the date set forth in Section 3.3 of the Summary (the "**Lease Expiration Date**") unless this Lease is sooner terminated as hereinafter provided. For purposes of this Lease, the term "**Lease Year**" shall mean each consecutive twelve (12) month period during the Lease Term. At any time during the Lease Term, Landlord may deliver to Tenant a notice in the form as set forth in **Exhibit C**, attached hereto, as a confirmation only of the information set forth therein, which Tenant shall execute and return to Landlord within five (5) business days of receipt thereof. Notwithstanding the foregoing, if Landlord has not delivered possession of the Premises in the condition required by Section 1.1.1, above, (1) on or before October 1, 2017, then, as Tenant's sole remedy for such delay, the date Tenant is otherwise obligated to commence payment of rent shall be delayed by one day for each day that the delivery date is delayed beyond such date, or (2) January 1, 2018, then, Tenant shall also have the right to terminate this Lease by written notice thereof to Landlord, whereupon any monies previously paid by Tenant to Landlord shall be reimbursed to Tenant. The foregoing dates shall be extended to the extent of any delays in delivery of possession caused by (i) Tenant Delay, as provided in Section 1(j) of the Tenant Work Letter, or (ii) war, terrorism, acts of God, natural disaster, civil unrest, governmental strike or area-wide or industry-wide labor disputes, inability to obtain services, labor, or materials or reasonable substitutes therefor, or delays due to utility companies that are not the result of any action or inaction of Landlord (provided that any such delay in this item (ii) shall not extend any such date by more than ninety (90) days).

2.2 Option Term.

2.2.1 **Option Right**. Landlord hereby grants the Tenant originally named in this Lease (the "**Original Tenant**"), and its "Permitted Assignees", as that term is defined in Section 14.8 below, one (1) option to extend the Lease Term for a period of five (5) years each (the "**Option Term**"). Such option to extend shall be exercisable only by written notice delivered by Tenant to Landlord not more than twelve (12) months nor less than nine (9) months prior to the expiration of the initial Lease Term, stating that Tenant is thereby irrevocably exercising its option to lease the Premises during the applicable Option Term, provided that the following conditions **(**the "**Option Conditions**") are satisfied: (i) as of the date of delivery of such notice, Tenant is not in default under this Lease, after the expiration of any applicable notice and cure period; (ii) Tenant has not previously been in default under this Lease, after the expiration of any applicable notice and cure period, more than twice in the twelve (12) month period prior to the date of Tenant's attempted exercise; and (iii) the Lease then remains in full force and effect. Landlord may, at Landlord's option, exercised in Landlord's sole and absolute discretion, waive any of the Option Conditions in which case the option, if otherwise properly exercised by Tenant, shall remain in full force and effect. Upon the proper exercise of such option to extend, and provided that Tenant satisfies all of the Option Conditions (except those, if any, which are waived by Landlord), the Lease Term, as it applies to the Premises, shall be extended for a period of five (5) years. The rights contained in this Section 2.2 shall be personal to Original Tenant and any Permitted Assignee (and not any other assignee, sublessee or "Transferee," as that term is defined in Section 14.1, below, of Tenant's interest in this Lease). In the event that Tenant fails to timely and appropriately exercise its option to extend the Lease Term in accordance with the terms of this Section 2.2, then such option shall automatically terminate and shall be of no further force or effect.

2.2.2 **Option Rent**. The Base Rent payable by Tenant during the Option Term (the "**Option Rent**") shall be equal to the "Fair Rental Value," as that term is defined below, for the Premises as of the commencement date of the Option Term. The "**Fair Rental Value**," as used in this Lease, shall be equal to the annual rent per rentable square foot (including additional rent and considering any "base year" or "expense stop" applicable thereto), including all escalations, at which tenants (pursuant to leases consummated within the twelve (12) month period preceding the first day of the Option Term), are leasing non-sublease, non-encumbered, non-equity space which is not significantly greater or smaller in size than the subject space, with a comparable level of improvements (excluding any property that Tenant would be allowed to remove from the Premises at the termination of the Lease), for a comparable lease term, in an arm's length transaction, which comparable space is located in the "Comparable Buildings," as that term is defined in this Section 2.2.2, below (transactions satisfying the foregoing criteria shall be known as "**Comparable Transactions**"), taking into consideration the following concessions (the "**Concessions**"): (a) rental abatement concessions, if any, being granted such tenants in connection with such comparable space; (b) tenant improvements or allowances provided or to be provided for such comparable space, and taking into account the value, if any, of the existing improvements in the subject space (other than improvements installed by Tenant at Tenant's sole cost and expense), such value to be based upon the age, condition, design, quality of finishes and layout of the improvements and the extent to which the same can be utilized for the Permitted Use by user other than Tenant; and (c) other reasonable monetary concessions being granted such tenants in connection with such comparable space. The Concessions shall be reflected in the effective rental rate (which effective rental rate shall take into consideration the total dollar value of such Concessions as amortized on a straight-line basis over the applicable term of the Comparable Transaction (in which case such Concessions evidenced in the effective rental rate shall not be granted to Tenant)) payable by Tenant. The term "**Comparable Buildings**" shall mean the Building and those other buildings which are comparable to the Building in terms of age (based upon the date of completion of construction or major renovation of the building), quality of construction, level of services and amenities, size and appearance, and located in First Class Life Sciences Project in South San Francisco, California and the surrounding commercial area.

2.2.3 **Determination of Option Rent**. In the event Tenant timely and appropriately exercises an option to extend the Lease Term, Landlord shall notify Tenant of Landlord's determination of the Option Rent within thirty (30) days thereafter. If Tenant, on or before the date which is ten (10) business days following the date upon which Tenant receives Landlord's determination of the Option Rent, in good faith objects to Landlord's determination of the Option Rent, then Landlord and Tenant shall attempt to agree upon the Option Rent using their best good-faith efforts. If Landlord and Tenant fail to reach agreement within ten (10) business days following Tenant's objection to the Option Rent (the "**Outside Agreement Date**"), then Tenant shall have the right to withdraw its exercise of the option by delivering written notice thereof to Landlord within five (5) days thereafter, in which event Tenant's right to extend the Lease pursuant to this Section 2.2 shall be of no further force or effect. If Tenant does not withdraw its exercise of the extension option, each party shall make a separate determination of the Option Rent, as the case may be, within ten (10) days after the Outside Agreement Date, and such determinations shall be submitted to arbitration in accordance with Sections 2.2.3.1 through 2.2.3.7, below. If Tenant fails to object to Landlord's determination of the Option Rent within the time period set forth herein, then Tenant shall be deemed to have accepted Landlord's determination of Option Rent.

2.2.3.1 Landlord and Tenant shall each appoint one arbitrator who shall be a real estate appraiser who shall have been active over the five (5) year period ending on the date of such appointment in the appraisal, of other class A life sciences buildings located in the South San Francisco market area. The determination of the arbitrators shall be limited solely to the issue of whether Landlord's or Tenant's submitted Option Rent is the closest to the actual Option Rent, taking into account the requirements of Section 2.2.2 of this Lease, as determined by the arbitrators. Each such arbitrator shall be appointed within fifteen (15) days after the Outside Agreement Date. Landlord and Tenant may consult with their selected arbitrators prior to appointment and may select an arbitrator who is favorable to their respective positions. The arbitrators so selected by Landlord and Tenant shall be deemed "**Advocate Arbitrators**."

2.2.3.2 The two (2) Advocate Arbitrators so appointed shall be specifically required pursuant to an engagement letter within ten (10) days of the date of the appointment of the last appointed Advocate Arbitrator to agree upon and appoint a third arbitrator ("**Neutral Arbitrator**") who shall be qualified under the same criteria set forth hereinabove for qualification of the two Advocate Arbitrators, except that neither the Landlord or Tenant or either parties' Advocate Arbitrator may, directly or indirectly, consult with the Neutral Arbitrator prior or subsequent to his or her appearance. The Neutral Arbitrator shall be retained via an engagement letter jointly prepared by Landlord's counsel and Tenant's counsel.

2.2.3.3 The three arbitrators shall, within thirty (30) days of the appointment of the Neutral Arbitrator, reach a decision as to whether the parties shall use Landlord's or Tenant's submitted Option Rent, and shall notify Landlord and Tenant thereof.

2.2.3.4 The decision of the majority of the three arbitrators shall be binding upon Landlord and Tenant.

2.2.3.5 If either Landlord or Tenant fails to appoint an Advocate Arbitrator within fifteen (15) days after the Outside Agreement Date, then either party may petition the presiding judge of the Superior Court of San Mateo County to appoint such Advocate Arbitrator subject to the criteria in Section 2.2.3.1 of this Lease, or if he or she refuses to act, either party may petition any judge having jurisdiction over the parties to appoint such Advocate Arbitrator.

2.2.3.6 If the two (2) Advocate Arbitrators fail to agree upon and appoint the Neutral Arbitrator, then either party may petition the presiding judge of the Superior Court of San Mateo County to appoint the Neutral Arbitrator, subject to criteria in Section 2.2.3.1 of this Lease, or if he or she refuses to act, either party may petition any judge having jurisdiction over the parties to appoint such arbitrator.

2.2.3.7 The cost of the arbitration shall be paid by Landlord and Tenant equally.

2.2.3.8 In the event that the Option Rent shall not have been determined pursuant to the terms hereof prior to the commencement of the Option Term, Tenant shall be required to pay the Option Rent initially provided by Landlord to Tenant, and upon the final determination of the Option Rent, the payments made by Tenant shall be reconciled with the actual amounts of Option Rent due, and the appropriate party shall make any corresponding payment to the other party.

3. BASE RENT Tenant shall pay, without prior notice or demand, to Landlord or Landlord's agent at the management office of the Project, or, at Landlord's option, at such other place as Landlord may from time to time designate in writing, by a check for currency which, at the time of payment, is legal tender for private or public debts in the United States of America, base rent ("**Base Rent**") as set forth in Section 4 of the Summary, payable in equal monthly installments as set forth in Section 4 of the Summary in advance on or before the first day of each and every calendar month during the Lease Term, without any setoff or deduction whatsoever. The Base Rent for the third (3rd) full month of the Lease Term shall be paid at the time of Tenant's execution of this Lease. If any Rent payment date (including the Lease Commencement Date) falls on a day of the month other than the first day of such month or if any payment of Rent is for a period which is shorter than one month, the Rent for any fractional month shall accrue on a daily basis for the period from the date such payment is due to the end of such calendar month or to the end of the Lease Term at a rate per day which is equal to 1/365 of the applicable annual Rent. All other payments or adjustments required to be made under the terms of this Lease that require proration on a time basis shall be prorated on the same basis.

4. ADDITIONAL RENT

4.1 **General Terms**.

4.1.1 **Direct Expenses; Additional Rent**. In addition to paying the Base Rent specified in Article 3 of this Lease, Tenant shall pay during the Lease Term "**Tenant's Share**" of the annual "**Direct Expenses**," as those terms are defined in Sections 4.2.6 and 4.2.2 of this Lease, respectively, allocable to the Building as described in Section 4.3. Such payments by Tenant, together with any and all other amounts payable by Tenant to Landlord pursuant to the terms of this Lease, are hereinafter collectively referred to as the "**Additional Rent**", and the Base

Rent and the Additional Rent are herein collectively referred to as "**Rent**." All amounts due under this Article 4 as Additional Rent shall be payable for the same periods and in the same manner as the Base Rent. Without limitation on other obligations of Tenant which survive the expiration of the Lease Term, the obligations of Tenant to pay the Additional Rent provided for in this Article 4 shall survive the expiration of the Lease Term.

4.1.2 **Triple Net Lease**. Landlord and Tenant acknowledge that, to the extent provided in this Lease, it is their intent and agreement that this Lease be a "**TRIPLE NET**" lease and that as such, the provisions contained in this Lease are intended to pass on to Tenant or reimburse Landlord for the costs and expenses reasonably associated with this Lease, the Building and the Project, and Tenant's operation therefrom to the extent provided in this Lease. To the extent such costs and expenses payable by Tenant cannot be charged directly to, and paid by, Tenant, such costs and expenses shall be paid by Landlord but reimbursed by Tenant as Additional Rent.

4.2 **Definitions of Key Terms Relating to Additional Rent**. As used in this Article 4, the following terms shall have the meanings hereinafter set forth:

4.2.1 Intentionally Deleted.

4.2.2 "**Direct Expenses**" shall mean "**Operating Expenses**" and "**Tax Expenses**."

4.2.3 "**Expense Year**" shall mean each calendar year in which any portion of the Lease Term falls, through and including the calendar year in which the Lease Term expires, provided that Landlord, upon notice to Tenant, may change the Expense Year from time to time to any other twelve (12) consecutive month period, and, in the event of any such change, Tenant's Share of Direct Expenses shall be equitably adjusted for any Expense Year involved in any such change.

4.2.4 "**Operating Expenses**" shall mean all expenses, costs and amounts of every kind and nature which Landlord pays or accrues during any Expense Year because of or in connection with the ownership, management, maintenance, security, repair, replacement, restoration or operation of the Project, or any portion thereof. Without limiting the generality of the foregoing, Operating Expenses shall specifically include any and all of the following: (i) the cost of supplying all utilities, the cost of operating, repairing and maintaining the utility, telephone, mechanical, sanitary, storm drainage, and elevator systems, and the cost of maintenance and service contracts in connection therewith; (ii) the cost of licenses, certificates, permits and inspections and the cost of contesting any governmental enactments which are reasonably likely to increase Operating Expenses during the Lease Term, and the costs incurred in connection with a governmentally mandated transportation system management program or similar program; (iii) the cost of all insurance carried by Landlord in connection with the Project and Premises as reasonably determined by Landlord; (iv) the cost of landscaping, relamping, and all supplies, tools, equipment and materials used in the operation, repair and maintenance of the Project, or any portion thereof; (v) the cost of parking area operation, repair, restoration, and maintenance; (vi) management and/or incentive fees, consulting fees, legal fees and accounting fees, of all contractors and consultants in connection with the management, operation, maintenance and repair of the Project; (vii) payments under any equipment rental agreements; (viii) subject to item (f), below, wages, salaries and other compensation and benefits, including taxes levied thereon, of all persons engaged in the operation, maintenance and security of the Project; (ix) costs under any easement pertaining to the sharing of costs by the Project; (x) operation, repair, maintenance and replacement of all systems and equipment and components thereof of the Project; (xi) the cost of janitorial, alarm, security and other services, replacement of wall and floor coverings, ceiling tiles and fixtures in Common Areas, maintenance and replacement of curbs and walkways, repair to roofs and re-roofing; (xii) amortization (including commercially reasonable interest on the unamortized cost) over such period of time as Landlord shall reasonably determine, of the cost of acquiring or the rental expense of personal property used in the maintenance, operation and repair of the Project, or any portion thereof; (xiii) the cost of capital improvements or other costs incurred in connection with the Project (A) which are intended to effect economies in the operation or maintenance of the Project, or any portion thereof, or to reduce current or future Operating Expenses or to enhance the safety or security of the Project or its occupants, (B) which are required to comply with present or anticipated conservation programs, (C) which are replacements or modifications of nonstructural items located in the Common Areas required to keep the Common Areas in good order or condition, or (D) which are required under any governmental law or regulation; provided, however, notwithstanding anything to the contrary herein, that any capital

expenditure shall be amortized (including reasonable interest on the amortized cost) over the reasonable useful life of such capital item before being included in Operating Expenses; (xiv) costs, fees, charges or assessments imposed by, or resulting from any mandate imposed on Landlord by, any federal, state or local government for fire and police protection, trash removal, community services, or other services which do not constitute "Tax Expenses" as that term is defined in Section 4.2.5, below; and (xv) payments under any easement, license, operating agreement, declaration, restrictive covenant, or instrument pertaining to the sharing of costs by the Building, including, without limitation, any covenants, conditions and restrictions affecting the property, and reciprocal easement agreements affecting the property, any parking licenses, and any agreements with transit agencies affecting the Property (collectively, "**Underlying Documents**"). Notwithstanding the foregoing, for purposes of this Lease, Operating Expenses shall not, however, include:

(a) costs, including legal fees, space planners' fees, advertising and promotional expenses (except as otherwise set forth above), and brokerage fees incurred in connection with the original construction or development, or original or future leasing of the Project, and costs, including permit, license and inspection costs, incurred with respect to the installation of tenant improvements made for new tenants initially occupying space in the Project after the Lease Commencement Date or incurred in renovating or otherwise improving, decorating, painting or redecorating vacant space for tenants or other occupants of the Project (excluding, however, such costs relating to any common areas of the Project or parking facilities);

(b) except as set forth in items (xii), (xiii), and (xiv) above, depreciation, interest and principal payments on mortgages and other debt costs, if any, penalties and interest;

(c) costs for which the Landlord is reimbursed by any tenant or occupant of the Project or by insurance by its carrier or any tenant's carrier or by anyone else, electric power costs for which any tenant directly contracts with the local public service company and costs of utilities and services provided to other tenants that are not provided to Tenant;

(d) any bad debt loss, rent loss, or reserves for bad debts or rent loss or other reserves to the extent not used in the same year;

(e) costs associated with the operation of the business of the partnership or entity which constitutes the Landlord, as the same are distinguished from the costs of operation of the Project (which shall specifically include, but not be limited to, accounting costs associated with the operation of the Project). Costs associated with the operation of the business of the partnership or entity which constitutes the Landlord include costs of partnership accounting and legal matters, costs of defending any lawsuits with any mortgagee (except as the actions of the Tenant may be in issue), costs of selling, syndicating, financing, mortgaging or hypothecating any of the Landlord's interest in the Project, and costs incurred in connection with any disputes between Landlord and its employees, between Landlord and Project management, or between Landlord and other tenants or occupants;

(f) the wages and benefits of any employee who does not devote substantially all of his or her employed time to the Project unless such wages and benefits are prorated to reflect time spent on operating and managing the Project vis-a-vis time spent on matters unrelated to operating and managing the Project; provided, that in no event shall Operating Expenses for purposes of this Lease include wages and/or benefits attributable to personnel above the level of Project manager;

(g) amount paid as ground rental for the Project by the Landlord;

(h) except for a property management fee not to exceed three percent (3%) of gross revenues, overhead and profit increment paid to the Landlord, and any amounts paid to the Landlord or to subsidiaries or affiliates of the Landlord for services in the Project to the extent the same exceeds the costs of such services rendered by qualified, first-class unaffiliated third parties on a competitive basis;

(i) any compensation paid to clerks, attendants or other persons in commercial concessions operated by the Landlord (other than as direct reimbursement for costs which, if incurred directly by Landlord, would properly be included in Operating Expenses);

(j) rentals and other related expenses incurred in leasing air conditioning systems, elevators or other equipment which if purchased the cost of which would be excluded from Operating Expenses as a capital cost, except equipment not affixed to the Project which is used in providing engineering, janitorial or similar services and, further excepting from this exclusion such equipment rented or leased to remedy or ameliorate an emergency condition in the Project ;

(k) all items and services for which Tenant or any other tenant in the Project reimburses Landlord or which Landlord provides selectively to one or more tenants (other than Tenant) without reimbursement;

(l) any costs expressly excluded from Operating Expenses elsewhere in this Lease;

(m) rent for any office space occupied by Project management personnel;

(n) costs arising from the gross negligence or willful misconduct of Landlord or its agents, employees or contractors in connection with this Lease;

(o) costs incurred to comply with laws relating to the removal or remediation of hazardous material (as defined under applicable law), and any costs of fines or penalties relating to the presence of hazardous material, in each case to the extent not brought into the Building or Premises by Tenant or any Tenant Parties;

(p) costs to correct any construction defect in the Project or to remedy any violation of a covenant, condition, restriction, underwriter's requirement or law that exists as of the Lease Commencement Date;

(q) capital costs occasioned by casualties or condemnation;

(r) legal fees, accountants' fees (other than normal bookkeeping expenses) and other expenses incurred in connection with disputes of tenant or other occupants of the Project or associated with the enforcement of the terms of any leases with tenants or the defense of Landlord's title to or interest in the Project or any part thereof;

(s) costs incurred due to a violation by Landlord or any other tenant of the Project of the terms and conditions of a lease; and

(t) self-insurance retentions.

4.2.5 **Taxes**.

4.2.5.1 "**Tax Expenses**" shall mean all federal, state, county, or local governmental or municipal taxes, fees, charges or other impositions of every kind and nature, whether general, special, ordinary or extraordinary (including, without limitation, real estate taxes, general and special assessments, transit taxes, leasehold taxes or taxes based upon the receipt of rent, including gross receipts or sales taxes applicable to the receipt of rent, unless required to be paid by Tenant, personal property taxes imposed upon the fixtures, machinery, equipment, apparatus, systems and equipment, appurtenances, furniture and other personal property used in connection with the Project, or any portion thereof), which shall be paid or accrued during any Expense Year (without regard to any different fiscal year used by such governmental or municipal authority) because of or in connection with the ownership, leasing and operation of the Project, or any portion thereof.

4.2.5.2 Tax Expenses shall include, without limitation: (i) Any tax on the rent, right to rent or other income from the Project, or any portion thereof, or as against the business of leasing the Project, or any portion thereof; (ii) Any assessment, tax, fee, levy or charge in addition to, or in substitution, partially or totally, of any assessment, tax, fee, levy or charge previously included within the definition of real property tax; (iii) Any assessment, tax, fee, levy, or charge allocable to or measured by the area of the Premises or the Rent payable hereunder, including, without limitation, any business or gross income tax or excise tax with respect to the receipt of such rent, or upon or with respect to the possession, leasing, operating, management, maintenance, alteration, repair, use or occupancy by Tenant of the Premises, or any portion thereof; and (iv) Any assessment, tax, fee, levy or charge, upon this transaction or any document to which Tenant is a party, creating or transferring an interest or an estate in the Premises or the improvements thereon.

4.2.5.3 Any costs and expenses (including, without limitation, reasonable attorneys' and consultants' fees) incurred in attempting to protest, reduce or minimize Tax Expenses shall be included in Tax Expenses in the Expense Year such expenses are incurred. Tax refunds shall be credited against Tax Expenses and refunded to Tenant regardless of when received, based on the Expense Year to which the refund is applicable, provided that in no event shall the amount to be refunded to Tenant for any such Expense Year exceed the total amount paid by Tenant as Additional Rent under this Article 4 for such Expense Year. If Tax Expenses for any period during the Lease Term or any extension thereof are increased after payment thereof for any reason, including, without limitation, error or reassessment by applicable governmental or municipal authorities, Tenant shall pay Landlord upon demand Tenant's Share of any such increased Tax Expenses. Notwithstanding anything to the contrary contained in this Section 4.2.5, there shall be excluded from Tax Expenses (i) all excess profits taxes, franchise taxes, gift taxes, capital stock taxes, inheritance and succession taxes, transfer taxes, estate taxes, federal and state income taxes, and other taxes to the extent applicable to Landlord's net income (as opposed to rents, receipts or income attributable to operations at the Project), (ii) any items included as Operating Expenses, (iii) any items paid by Tenant under Section 4.5 of this Lease, (iv) assessments in excess of the amount which would be payable if such assessment expense were paid in installments over the longest permitted term, (v) taxes imposed on land and improvements other than the Project and (vi) tax increases resulting from the improvement of any of the Project for the sole use of other occupants.

4.2.6 "**Tenant's Share**" shall mean the percentage set forth in Section 6 of the Summary.

4.3 **Allocation of Direct Expenses**. The parties acknowledge that the Building is a part of a multi-building project and that the costs and expenses incurred in connection with the Project (i.e., the Direct Expenses) should be shared between the Building and the other buildings in the Project. Accordingly, as set forth in Section 4.2 above, Direct Expenses (which consist of Operating Expenses and Tax Expenses) are determined annually for the Project as a whole, and a portion of the Direct Expenses, which portion shall be determined by Landlord on an equitable basis, shall be allocated to the Building (as opposed to other buildings in the Project). Such portion of Direct Expenses allocated to the Building shall include all Direct Expenses attributable solely to the Building and a pro rata portion of the Direct Expenses attributable to the Project as a whole, and shall not include Direct Expenses attributable solely to other buildings in the Project.

4.4 **Calculation and Payment of Additional Rent**. Commencing on the Lease Commencement Date, Tenant shall pay to Landlord, in the manner set forth in Section 4.4.1, below, and as Additional Rent, Tenant's Share of Direct Expenses for each Expense Year during the Lease Term.

4.4.1 **Statement of Actual Direct Expenses and Payment by Tenant**. Landlord shall give to Tenant within five (5) months following the end of each Expense Year (provided that Landlord agrees to utilize commercially reasonable efforts to deliver such Statement to Tenant as soon as practicable following the end of each Expense Year), a statement (the "**Statement**") which shall state the Direct Expenses incurred or accrued for such preceding Expense Year, and which shall indicate the amount of Tenant's Share of Direct Expenses. Upon receipt of the Statement for each Expense Year commencing or ending during the Lease Term, Tenant shall pay, with its next installment of Base Rent due that is at least thirty (30) days thereafter, the full amount of Tenant's Share of Direct Expenses for such Expense Year, less the amounts, if any, paid during such Expense Year as "**Estimated Direct Expenses**," as that term is defined in Section 4.4.2, below, and if Tenant paid more as Estimated Direct Expenses than the actual Tenant's Share of Direct Expenses, Tenant shall receive a credit in the amount of Tenant's overpayment

against Rent next due under this Lease. The failure of Landlord to timely furnish the Statement for any Expense Year shall not prejudice Landlord or Tenant from enforcing its rights under this Article 4. Even though the Lease Term has expired and Tenant has vacated the Premises, when the final determination is made of Tenant's Share of Direct Expenses for the Expense Year in which this Lease terminates, Tenant shall immediately pay to Landlord such amount, and if Tenant paid more as Estimated Direct Expenses than the actual Tenant's Share of Direct Expenses, Landlord shall, within thirty (30) days, deliver a check payable to Tenant in the amount of the overpayment. The provisions of this Section 4.4.1 shall survive the expiration or earlier termination of the Lease Term. Notwithstanding the immediately preceding sentence, Tenant shall not be responsible for Tenant's Share of any Direct Expenses attributable to any Expense Year which are first billed to Tenant more than two (2) calendar years after the earlier of the expiration of the applicable Expense Year or the Lease Expiration Date, provided that in any event Tenant shall be responsible for Tenant's Share of Direct Expenses levied by any governmental authority or by any public utility companies at any time following the Lease Expiration Date which are attributable to any Expense Year (provided that Landlord delivers Tenant a bill for such amounts within two (2) years following Landlord's receipt of the bill therefor).

4.4.2 **Statement of Estimated Direct Expenses**. In addition, Landlord shall give Tenant a yearly expense estimate statement (the "**Estimate Statement**") which shall set forth Landlord's reasonable estimate (the "**Estimate**") of what the total amount of Direct Expenses for the then-current Expense Year shall be and the estimated Tenant's Share of Direct Expenses (the "**Estimated Direct Expenses**"). Landlord shall utilize commercially reasonable efforts to deliver such Estimate Statement within five (5) months following the end of each Expense Year. The failure of Landlord to timely furnish the Estimate Statement for any Expense Year shall not preclude Landlord from enforcing its rights to collect any Estimated Direct Expenses under this Article 4, nor shall Landlord be prohibited from revising any Estimate Statement or Estimated Direct Expenses theretofore delivered to the extent necessary. Thereafter, Tenant shall pay, with its next installment of Base Rent due that is at least thirty (30) days thereafter, a fraction of the Estimated Direct Expenses for the then-current Expense Year (reduced by any amounts paid pursuant to the last sentence of this Section 4.4.2). Such fraction shall have as its numerator the number of months which have elapsed in such current Expense Year, including the month of such payment, and twelve (12) as its denominator. Until a new Estimate Statement is furnished (which Landlord shall have the right to deliver to Tenant at any time), Tenant shall pay monthly, with the monthly Base Rent installments, an amount equal to one-twelfth (1/12) of the total Estimated Direct Expenses set forth in the previous Estimate Statement delivered by Landlord to Tenant.

4.5 **Taxes and Other Charges for Which Tenant Is Directly Responsible**. Tenant shall be liable for and shall pay ten (10) days before delinquency, taxes levied against Tenant's equipment, furniture, fixtures and any other personal property located in or about the Premises. If any such taxes on Tenant's equipment, furniture, fixtures and any other personal property are levied against Landlord or Landlord's property or if the assessed value of Landlord's property is increased by the inclusion therein of a value placed upon such equipment, furniture, fixtures or any other personal property and if Landlord pays the taxes based upon such increased assessment, which Landlord shall have the right to do regardless of the validity thereof but only under proper protest if requested by Tenant, Tenant shall upon demand repay to Landlord the taxes so levied against Landlord or the proportion of such taxes resulting from such increase in the assessment, as the case may be.

4.6 **Landlord's Books and Records**. Within one hundred twenty (120) days after receipt by Tenant of a Statement, if Tenant disputes the amount of Additional Rent set forth in the Statement, a member of Tenant's finance department, or an independent certified public accountant (which accountant is a member of a nationally recognized accounting firm and is not working on a contingency fee basis) ("**Tenant's Accountant**"), designated and paid for by Tenant, may, after reasonable notice to Landlord and at reasonable times, inspect Landlord's records with respect to the Statement at Landlord's offices, provided that there is no existing Event of Default and Tenant has paid all amounts required to be paid under the applicable Estimate Statement and Statement, as the case may be. In connection with such inspection, Tenant and Tenant's agents must agree in advance to follow Landlord's reasonable rules and procedures regarding inspections of Landlord's records, and shall execute a commercially reasonable confidentiality agreement regarding such inspection. Tenant's failure to dispute the amount of Additional Rent set forth in any Statement within one hundred twenty (120) days of Tenant's receipt of such Statement shall be deemed to be Tenant's approval of such Statement and Tenant, thereafter, waives the right or ability to dispute the amounts set forth in such Statement. If after such inspection, Tenant still disputes such Additional Rent, a determination as to the proper amount shall be made, at Tenant's expense, by an independent certified public accountant (the "**Accountant**") selected by

Landlord and subject to Tenant's reasonable approval; provided that if such Accountant determines that Direct Expenses were overstated by more than five percent (5%), then the cost of the Accountant and the cost of such determination shall be paid for by Landlord, and Landlord shall reimburse Tenant for the cost of the Tenant's Accountant (provided that such cost shall be a reasonable market cost for such services). Tenant hereby acknowledges that Tenant's sole right to inspect Landlord's books and records and to contest the amount of Direct Expenses payable by Tenant shall be as set forth in this Section 4.6, and Tenant hereby waives any and all other rights pursuant to applicable law to inspect such books and records and/or to contest the amount of Direct Expenses payable by Tenant.

5. USE OF PREMISES

5.1 **Permitted Use**. Tenant shall use the Premises solely for the Permitted Use set forth in Section 7 of the Summary and Tenant shall not use or permit the Premises or the Project to be used for any other purpose or purposes whatsoever without the prior written consent of Landlord, which may be withheld in Landlord's sole discretion.

5.2 **Prohibited Uses**. Tenant further covenants and agrees that Tenant shall not use or permit any person or persons to use, the Premises or any part thereof for any use or purpose in violation of the laws of the United States of America, the State of California, or the ordinances, regulations or requirements of the local municipal or county governing body or other lawful authorities having jurisdiction over the Project) including, without limitation, any such laws, ordinances, regulations or requirements relating to hazardous materials or substances, as those terms are defined by applicable laws now or hereafter in effect. Landlord shall have the right to impose reasonable, nondiscriminatory and customary rules and regulations regarding the use of the Project that do not unreasonably interfere with Tenant's use of the Premises, as reasonably deemed necessary by Landlord with respect to the orderly operation of the Project, and Tenant shall comply with such reasonable rules and regulations. Tenant shall not do or permit anything to be done in or about the Premises which will in any way obstruct or interfere with the rights of other tenants or occupants of the Building, or injure or annoy them or use or allow the Premises to be used for any improper, unlawful or objectionable purpose, nor shall Tenant cause, maintain or permit any nuisance in, on or about the Premises. Tenant shall comply with, and Tenant's rights and obligations under the Lease and Tenant's use of the Premises shall be subject and subordinate to, all recorded easements, covenants, conditions, and restrictions now or hereafter affecting the Project, so long as the same do not unreasonably interfere with Tenant's use of the Premises or parking rights or materially increase Tenant's obligations or decrease Tenant's rights under this Lease.

5.3 **Hazardous Materials**.

5.3.1 **Tenant's Obligations**.

5.3.1.1 **Prohibitions**. As a material inducement to Landlord to enter into this Lease with Tenant, Tenant has fully and accurately completed Landlord's Pre-Leasing Environmental Exposure Questionnaire (the "**Environmental Questionnaire**"), which is attached as **Exhibit E**. Tenant agrees that except for those chemicals or materials, and their respective quantities, specifically listed on the Environmental Questionnaire (as the same may be updated from time to time as provided below), neither Tenant nor Tenant's employees, contractors and subcontractors of any tier, entities with a contractual relationship with Tenant (other than Landlord), or any entity acting as an agent or sub-agent of Tenant (collectively, "**Tenant's Agents**") will produce, use, store or generate any "Hazardous Materials," as that term is defined below, on, under or about the Premises, nor cause any Hazardous Material to be brought upon, placed, stored, manufactured, generated, blended, handled, recycled, used or "Released," as that term is defined below, on, in, under or about the Premises. If any information provided to Landlord by Tenant on the Environmental Questionnaire, or otherwise relating to information concerning Hazardous Materials is intentionally false, incomplete, or misleading in any material respect, the same shall be deemed a default by Tenant under this Lease. Upon Landlord's request, or in the event of any material change in Tenant's use of Hazardous Materials in the Premises, Tenant shall deliver to Landlord an updated Environmental Questionnaire at least once a year. Tenant shall notify Landlord prior to using any Hazardous Materials in the Premises not described on the initial Environmental Questionnaire, and, to the extent such use would, in Landlord's reasonable judgment, cause a material increase in the risk of liability compared to the uses previously allowed in the Premises, such additional use shall be subject to Landlord's prior consent, which may be withheld in Landlord's reasonable discretion. Tenant shall not

install or permit Tenant's Agents to install any underground storage tank on the Premises. For purposes of this Lease, "**Hazardous Materials**" means all flammable explosives, petroleum and petroleum products, waste oil, radon, radioactive materials, toxic pollutants, asbestos, polychlorinated biphenyls ("**PCBs**"), medical waste, chemicals known to cause cancer or reproductive toxicity, pollutants, contaminants, hazardous wastes, toxic substances or related materials, including without limitation any chemical, element, compound, mixture, solution, substance, object, waste or any combination thereof, which is or may be hazardous to human health, safety or to the environment due to its radioactivity, ignitability, corrosiveness, reactivity, explosiveness, toxicity, carcinogenicity, infectiousness or other harmful or potentially harmful properties or effects, or defined as, regulated as or included in, the definition of "hazardous substances," "hazardous wastes," "hazardous materials," or "toxic substances" under any Environmental Laws. For purposes of this Lease, "**Release**" or "**Released**" or "**Releases**" shall mean any release, deposit, discharge, emission, leaking, spilling, seeping, migrating, injecting, pumping, pouring, emptying, escaping, dumping, disposing, or other movement of Hazardous Materials into the environment. Landlord acknowledges that Tenant will be installing and using fume hoods in the Premises and that emissions of Hazardous Materials into the air in compliance with all Environmental Laws shall not be considered Releases.

5.3.1.2 **Notices to Landlord**. Tenant shall notify Landlord in writing as soon as possible but in no event later than five (5) days after (i) the occurrence of any actual, alleged or threatened Release of any Hazardous Material in, on, under, from, about or in the vicinity of the Premises (whether past or present), regardless of the source or quantity of any such Release, or (ii) Tenant becomes aware of any regulatory actions, inquiries, inspections, investigations, directives, or any cleanup, compliance, enforcement or abatement proceedings (including any threatened or contemplated investigations or proceedings) relating to or potentially affecting the Premises, or (iii) Tenant becomes aware of any claims by any person or entity relating to any Hazardous Materials in, on, under, from, about or in the vicinity of the Premises, whether relating to damage, contribution, cost recovery, compensation, loss or injury. Collectively, the matters set forth in clauses (i), (ii) and (iii) above are hereinafter referred to as "**Hazardous Materials Claims**". Tenant shall promptly forward to Landlord copies of all orders, notices, permits, applications and other communications and reports in connection with any Hazardous Materials Claims. Additionally, Tenant shall promptly advise Landlord in writing of Tenant's discovery of any occurrence or condition on, in, under or about the Premises that could subject Tenant or Landlord to any liability, or restrictions on ownership, occupancy, transferability or use of the Premises under any "Environmental Laws," as that term is defined below. Tenant shall not enter into any legal proceeding or other action, settlement, consent decree or other compromise with respect to any Hazardous Materials Claims without first notifying Landlord of Tenant's intention to do so and affording Landlord the opportunity to join and participate, as a party if Landlord so elects, in such proceedings and in no event shall Tenant enter into any agreements which are binding on Landlord or the Premises without Landlord's prior written consent. Landlord shall have the right to appear at and participate in, any and all legal or other administrative proceedings concerning any Hazardous Materials Claim. For purposes of this Lease, "**Environmental Laws**" means all applicable present and future laws relating to the protection of human health, safety, wildlife or the environment, including, without limitation, (i) all requirements pertaining to reporting, licensing, permitting, investigation and/or remediation of emissions, discharges, Releases, or threatened Releases of Hazardous Materials, whether solid, liquid, or gaseous in nature, into the air, surface water, groundwater, or land, or relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport, or handling of Hazardous Materials; and (ii) all requirements pertaining to the health and safety of employees or the public. Environmental Laws include, but are not limited to, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 USC § 9601, et seq., the Hazardous Materials Transportation Authorization Act of 1994, 49 USC § 5101, et seq., the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, and Hazardous and Solid Waste Amendments of 1984, 42 USC § 6901, et seq., the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977, 33 USC § 1251, et seq., the Clean Air Act of 1966, 42 USC § 7401, et seq., the Toxic Substances Control Act of 1976, 15 USC § 2601, et seq., the Safe Drinking Water Act of 1974, 42 USC §§ 300f through 300j, the Occupational Safety and Health Act of 1970, as amended, 29 USC § 651 et seq., the Oil Pollution Act of 1990, 33 USC § 2701 et seq., the Emergency Planning and Community Right-To-Know Act of 1986, 42 USC § 11001 et seq., the National Environmental Policy Act of 1969, 42 USC § 4321 et seq., the Federal Insecticide, Fungicide and Rodenticide Act of 1947, 7 USC § 136 et seq., California Carpenter-Presley-Tanner Hazardous Substance Account Act, California Health & Safety Code §§ 25300 et seq., Hazardous Materials Release Response Plans and Inventory Act, California Health & Safety Code, §§ 25500 et seq., Underground Storage of Hazardous Substances provisions, California Health & Safety Code, §§ 25280 et seq., California Hazardous Waste Control Law, California Health & Safety Code, §§ 25100 et seq., and any other state or local law counterparts, as amended, as such applicable laws, are in effect as of the Lease Commencement Date, or thereafter adopted, published, or promulgated.

5.3.1.3 **Releases of Hazardous Materials**. If any Release of any Hazardous Material in, on, under, from or about the Premises shall occur at any time during the Lease by Tenant or Tenant's Agents, in addition to notifying Landlord as specified above, Tenant, at its own sole cost and expense, shall (i) immediately comply with any and all reporting requirements imposed pursuant to any and all Environmental Laws, (ii) provide a written certification to Landlord indicating that Tenant has complied with all applicable reporting requirements, (iii) take any and all necessary investigation, corrective and remedial action in accordance with any and all applicable Environmental Laws, utilizing an environmental consultant approved by Landlord, all in accordance with the provisions and requirements of this **Section 5.3**, including, without limitation, **Section 5.3.4**, and (iv) take any such additional investigative, remedial and corrective actions as Landlord shall in its reasonable discretion deem necessary such that the Premises are remediated to the condition existing prior to such Release.

5.3.1.4 **Indemnification**.

5.3.1.4.1 **In General**. Without limiting in any way Tenant's obligations under any other provision of this Lease, Tenant shall be solely responsible for and shall protect, defend, indemnify and hold the Landlord Parties harmless from and against any and all claims, judgments, losses, damages, costs, expenses, penalties, enforcement actions, taxes, fines, remedial actions, liabilities (including, without limitation, actual attorneys' fees, litigation, arbitration and administrative proceeding costs, expert and consultant fees and laboratory costs) including, without limitation, consequential damages and sums paid in settlement of claims, which arise during or after the Lease Term, whether foreseeable or unforeseeable, that arise during or after the Lease Term in whole or in part, foreseeable or unforeseeable, directly or indirectly arising out of or attributable to the Release of Hazardous Materials in, on, under or about the Premises by Tenant or Tenant's Agents.

5.3.1.4.2 **Limitations**. Notwithstanding anything in **Section 5.3.1.4**, above, to the contrary, Tenant's indemnity of Landlord as set forth in **Section 5.3.1.4**, above, shall not be applicable to claims based upon Hazardous Materials not Released by Tenant or Tenant's Agents.

5.3.1.4.3 **Landlord Indemnity**. Under no circumstance shall Tenant be liable for, and Landlord shall indemnify, defend, protect and hold harmless Tenant and Tenant's Agents from and against, all losses, costs, claims, liabilities and damages (including attorneys' and consultants' fees) arising out of any Hazardous Materials that exist in, on or about the Project as of the date hereof, or Hazardous Material Released by Landlord or any Landlord Parties. Landlord shall provide Tenant with any environmental reports relating to the Project in Landlord's immediate possession. The provision of such reports shall be for informational purposes only, and Landlord does not make any representation or warranty as to the correctness or completeness of any such reports.

5.3.1.5 **Compliance with Environmental Laws**. Without limiting the generality of Tenant's obligation to comply with applicable laws as otherwise provided in this Lease, Tenant shall, at its sole cost and expense, comply with all Environmental Laws related to the use of Hazardous Materials by Tenant and Tenant's Agents. Tenant shall obtain and maintain any and all necessary permits, licenses, certifications and approvals appropriate or required for the use, handling, storage, and disposal of any Hazardous Materials used, stored, generated, transported, handled, blended, or recycled by Tenant on the Premises. Landlord shall have a continuing right, without obligation, to require Tenant to obtain, and to review and inspect any and all such permits, licenses, certifications and approvals, together with copies of any and all Hazardous Materials management plans and programs, any and all Hazardous Materials risk management and pollution prevention programs, and any and all Hazardous Materials emergency response and employee training programs respecting Tenant's use of Hazardous Materials. Upon request of Landlord, Tenant shall deliver to Landlord a narrative description explaining the nature and scope of Tenant's activities involving Hazardous Materials and showing to Landlord's satisfaction compliance with all Environmental Laws and the terms of this Lease.

5.3.2 **Assurance of Performance**.

5.3.2.1 **Environmental Assessments In General**. Landlord may, but shall not be required to, engage from time to time such contractors as Landlord determines to be appropriate (and which are reasonably acceptable to Tenant) to perform environmental assessments of a scope reasonably determined by Landlord (an "**Environmental Assessment**") to ensure Tenant's compliance with the requirements of this Lease with respect to Hazardous Materials.

5.3.2.2 **Costs of Environmental Assessments**. All costs and expenses incurred by Landlord in connection with any such Environmental Assessment initially shall be paid by Landlord; provided that if any such Environmental Assessment shows that Tenant has failed to comply with the provisions of this **Section 5.3**, then all of the costs and expenses of such Environmental Assessment shall be reimbursed by Tenant as Additional Rent within thirty (30) days after receipt of written demand therefor.

5.3.3 **Tenant's Obligations upon Surrender**. At the expiration or earlier termination of the Lease Term, Tenant, at Tenant's sole cost and expense, shall: (i) cause an Environmental Assessment of the Premises to be conducted in accordance with **Section 15.3**; (ii) cause all Hazardous Materials brought onto the Premises by Tenant or Tenant's Agents to be removed from the Premises and disposed of in accordance with all Environmental Laws and as necessary to allow the Premises to be used for the purposes allowed as of the date of this Lease; and (iii) cause to be removed all containers installed or used by Tenant or Tenant's Agents to store any Hazardous Materials on the Premises, and cause to be repaired any damage to the Premises caused by such removal.

5.3.4 **Clean-up**.

5.3.4.1 **Environmental Reports; Clean-Up**. If any written report, including any report containing results of any Environmental Assessment (an "**Environmental Report**") shall indicate (i) the presence of any Hazardous Materials as to which Tenant has a removal or remediation obligation under this **Section 5.3**, and (ii) that as a result of same, the investigation, characterization, monitoring, assessment, repair, closure, remediation, removal, or other clean-up (the "**Clean-up**") of any Hazardous Materials is required, Tenant shall immediately prepare and submit to Landlord within thirty (30) days after receipt of the Environmental Report a comprehensive plan, subject to Landlord's written approval, specifying the actions to be taken by Tenant to perform the Clean-up so that the Premises are restored to the conditions required by this Lease. Upon Landlord's approval of the Clean-up plan, Tenant shall, at Tenant's sole cost and expense, without limitation on any rights and remedies of Landlord under this Lease, immediately implement such plan with a consultant reasonably acceptable to Landlord and proceed to Clean-Up Hazardous Materials in accordance with all applicable laws. If, within thirty (30) days after receiving a copy of such Environmental Report, Tenant fails either (a) to complete such Clean-up, or (b) with respect to any Clean-up that cannot be completed within such thirty-day period, fails to proceed with diligence to prepare the Clean-up plan and complete the Clean-up as promptly as practicable, then Landlord shall have the right, but not the obligation, and without waiving any other rights under this Lease, to carry out any Clean-up recommended by the Environmental Report or required by any governmental authority having jurisdiction over the Premises, and recover all of the costs and expenses thereof from Tenant as Additional Rent, payable within ten (10) days after receipt of written demand therefor.

5.3.4.2 **No Rent Abatement**. Tenant shall continue to pay all Rent due or accruing under this Lease during any Clean-up, and shall not be entitled to any reduction, offset or deferral of any Base Rent or Additional Rent due or accruing under this Lease during any such Clean-up.

5.3.4.3 **Surrender of Premises**. Tenant shall complete any Clean-up prior to surrender of the Premises upon the expiration or earlier termination of this Lease. Tenant shall obtain and deliver to Landlord a letter or other written determination from the overseeing governmental authority confirming that the Clean-up has been completed in accordance with all requirements of such governmental authority and that no further response action of any kind is required for the unrestricted use of the Premises ("**Closure Letter**"). Upon the expiration or earlier termination of this Lease, Tenant shall also be obligated to close all permits obtained in connection with Hazardous Materials used by Tenant or Tenant's Agents in accordance with applicable laws.

5.3.4.4 **Failure to Timely Clean-Up**. Should any Clean-up for which Tenant is responsible not be completed, or should Tenant not receive the Closure Letter and any governmental approvals required under Environmental Laws in conjunction with such Clean-up prior to the expiration or earlier termination of this Lease, then, commencing on the later of the termination of this Lease and three (3) business days after Landlord's delivery of notice of such failure and that it elects to treat such failure as a holdover, Tenant shall be liable to Landlord as a holdover tenant (as more particularly provided in **Article 16**) until Tenant has fully complied with its obligations under this **Section 5.3**.

5.3.5 **Confidentiality**. Unless compelled to do so by applicable law, Tenant agrees that Tenant shall not disclose, discuss, disseminate or copy any information, data, findings, communications, conclusions and reports regarding the environmental condition of the Premises to any Person (other than Tenant's consultants, attorneys, property managers, employees, shareholders and potential and actual investors, lenders, business and merger partners, subtenants and assignees that have a need to know such information), including any governmental authority, without the prior written consent of Landlord. In the event Tenant reasonably believes that disclosure is compelled by applicable law, it shall provide Landlord ten (10) days' advance notice of disclosure of confidential information so that Landlord may attempt to obtain a protective order. Tenant may additionally release such information to bona fide prospective purchasers or lenders, subject to any such parties' written agreement to be bound by the terms of this **Section 5.3**.

5.3.6 **Copies of Environmental Reports**. Within thirty (30) days of receipt thereof, Tenant shall provide Landlord with a copy of any and all environmental assessments, audits, studies and reports regarding Tenant's activities with respect to the Premises, or ground water beneath the Land, or the environmental condition or Clean-up thereof. Tenant shall be obligated to provide Landlord with a copy of such materials without regard to whether such materials are generated by Tenant or prepared for Tenant, or how Tenant comes into possession of such materials.

5.3.7 **Intentionally Omitted**.

5.3.8 **Signs, Response Plans, Etc**. Tenant shall be responsible for posting on the Premises any signs required under applicable Environmental Laws with respect to the use of Hazardous Materials by Tenant or Tenant's Agents. Tenant shall also complete and file any business response plans or inventories required by any applicable laws. Tenant shall concurrently file a copy of any such business response plan or inventory with Landlord.

5.3.9 **Survival**. Each covenant, agreement, representation, warranty and indemnification made by Tenant set forth in this **Section 5.3** shall survive the expiration or earlier termination of this Lease and shall remain effective until all of Tenant's obligations under this **Section 5.3** have been completely performed and satisfied.

6. SERVICES AND UTILITIES

6.1 **In General**. Tenant will be responsible, at its sole cost and expense, for the furnishing of all services and utilities to the Premises, including, but not limited to heating, ventilation and air-conditioning, electricity, water, telephone, janitorial and interior Building security services.

6.1.1 All utilities (including without limitation, electricity, gas, sewer and water) to the Building are separately metered at the Premises and shall be paid directly by Tenant to the applicable utility provider.

6.1.2 Landlord shall not provide janitorial services for the Premises. Tenant shall be solely responsible for performing all janitorial services and other cleaning of the Premises, all in compliance with applicable laws. The janitorial and cleaning of the Premises shall be adequate to maintain the Premises in a manner consistent with First Class Life Sciences Projects.

Tenant shall cooperate fully with Landlord at all times and abide by all reasonable regulations and requirements that Landlord may reasonably prescribe for the proper functioning and protection of the HVAC, electrical, mechanical and plumbing systems. Provided that Landlord agrees to provide and maintain and keep in continuous service utility connections to the Project, including electricity, water and sewage connections, Landlord shall have no obligation to provide any services or utilities to the Building, including, but not limited to heating, ventilation and air-conditioning, electricity, water, telephone, janitorial and interior Building security services, except as set forth in this Section 6.1, above.

6.2 **Interruption of Use**. Tenant agrees that Landlord shall not be liable for damages, by abatement of Rent or otherwise, for failure to furnish or delay in furnishing any service (including telephone and telecommunication services), or for any diminution in the quality or quantity thereof, when such failure or delay or diminution is occasioned, in whole or in part, by breakage, repairs, replacements, or improvements, by any strike, lockout or other labor trouble, by inability to secure electricity, gas, water, or other fuel at the Building or Project after reasonable effort to do so, by any riot or other dangerous condition, emergency, accident or casualty whatsoever, by act or default of Tenant or other parties, or by any other cause; and such failures or delays or diminution shall never be deemed to constitute an eviction or disturbance of Tenant's use and possession of the Premises or relieve Tenant from paying Rent or performing any of its obligations under this Lease. Notwithstanding the foregoing, Landlord may be liable for damages to the extent caused by the negligence or willful misconduct of Landlord or the Landlord Parties, provided that Landlord shall not be liable under any circumstances for injury to, or interference with, Tenant's business, including, without limitation, loss of profits, however occurring, through or in connection with or incidental to a failure to furnish any of the services or utilities as set forth in this Article 6.

6.3 **Energy Performance Disclosure Information**. Tenant hereby acknowledges that Landlord may be required to disclose certain information concerning the energy performance of the Building pursuant to California Public Resources Code Section 25402.10 and the regulations adopted pursuant thereto (collectively the "**Energy Disclosure Requirements**"). Tenant hereby acknowledges prior receipt of the Data Verification Checklist, as defined in the Energy Disclosure Requirements (the "**Energy Disclosure Information**"), and agrees that Landlord has timely complied in full with Landlord's obligations under the Energy Disclosure Requirements. Tenant acknowledges and agrees that (i) Landlord makes no representation or warranty regarding the energy performance of the Building or the accuracy or completeness of the Energy Disclosure Information, (ii) the Energy Disclosure Information is for the current occupancy and use of the Building and that the energy performance of the Building may vary depending on future occupancy and/or use of the Building, and (iii) Landlord shall have no liability to Tenant for any errors or omissions in the Energy Disclosure Information. If and to the extent not prohibited by applicable laws, Tenant hereby waives any right Tenant may have to receive the Energy Disclosure Information, including, without limitation, any right Tenant may have to terminate this Lease as a result of Landlord's failure to disclose such information. Further, Tenant hereby releases Landlord from any and all losses, costs, damages, expenses and/or liabilities relating to, arising out of and/or resulting from the Energy Disclosure Requirements, including, without limitation, any liabilities arising as a result of Landlord's failure to disclose the Energy Disclosure Information to Tenant prior to the execution of this Lease. Tenant's acknowledgment of the AS-IS condition of the Premises pursuant to the terms of this Lease shall be deemed to include the energy performance of the Building. Tenant further acknowledges that pursuant to the Energy Disclosure Requirements, Landlord may be required in the future to disclose information concerning Tenant's energy usage to certain third parties, including, without limitation, prospective purchasers, lenders and tenants of the Building (the "**Tenant Energy Use Disclosure**"). Tenant hereby (A) consents to all such Tenant Energy Use Disclosures, and (B) acknowledges that Landlord shall not be required to notify Tenant of any Tenant Energy Use Disclosure. Further, Tenant hereby releases Landlord from any and all losses, costs, damages, expenses and liabilities relating to, arising out of and/or resulting from any Tenant Energy Use Disclosure. The terms of this Section 6.3 shall survive the expiration or earlier termination of this Lease.

6.4 **Generator**. Commencing on the Lease Commencement Date, Tenant shall have the right to connect to the existing Building back-up generator (the "**Generator**"), for Tenant's Share of the Generator's capacity to provide back-up generator services to the Premises. During the Lease Term, Landlord shall maintain the Generator in good condition and repair, and Tenant shall be responsible for a share of the costs of such maintenance and repair based on the proportion of the Generator capacity allocated to the Premises. Notwithstanding the foregoing, Landlord shall not be liable for any damages whatsoever resulting from any failure in operation of the Generator, or the failure

of the Generator to provide suitable or adequate back-up power to the Premises, including but not limited to, loss of profits, loss of rents or other revenues, loss of business opportunity, loss of goodwill or loss of use, in each case, however occurring, or loss to inventory, scientific research, scientific experiments, laboratory animals, products, specimens, samples, and/or scientific, business, accounting and other records of every kind and description kept at the Premises and any and all income derived or derivable therefrom.

7. REPAIRS

7.1 **Tenant Repair Obligations**. Tenant shall, throughout the Term, at its sole cost and expense, maintain, repair or replace as required, the Premises in a good standard of maintenance, repair and replacement as required, and in good and sanitary condition, all in accordance with the standards of First Class Life Sciences Projects, except for the Landlord Repair Obligations, whether or not such maintenance, repair, replacement or improvement is required in order to comply with applicable Laws ("**Tenant's Repair Obligations**"), including without limitation, all electrical facilities and equipment, including lighting fixtures, lamps, fans and any exhaust equipment and systems, electrical motors and all other appliances and equipment of every kind and nature located in the Premises; all communications systems serving the Premises; all of Tenant's security systems in or about or serving the Premises; Tenant's signage; interior demising walls and partitions (including painting and wall coverings), equipment, floors. Tenant shall additionally be responsible, at Tenant's sole cost and expense, to furnish all expendables, including light bulbs, paper goods and soaps, used in the Premises.

7.2 **Landlord Repair Obligations**. Landlord shall be responsible, as a part of Operating Expenses, for repairs to and routine maintenance of the Building including without limitation: (1) exterior windows, window frames, window casements (including the repairing, resealing, cleaning and replacing of exterior windows); (2) exterior doors, door frames and door closers; (3) the Building (as opposed to the Premises) and Project plumbing, sewer, drainage, electrical, fire protection, life safety and security systems and equipment, existing heating, ventilation and air-conditioning systems, and all other mechanical and HVAC systems and equipment (collectively, the "**Building Systems**"), (4) the exterior glass, exterior walls, foundation and roof of the Building, the structural portions of the floors of the Building, including, without limitation, any painting, sealing, patching and waterproofing of exterior walls, and (5) repairs to the elevator in the Building and underground utilities, except to the extent that any such repairs are required due to the negligence or willful misconduct of Tenant (the "**Landlord Repair Obligations**"); provided, however, that if such repairs are due to the negligence or willful misconduct of Tenant, Landlord shall nevertheless make such repairs at Tenant's expense, or, if covered by Landlord's insurance, Tenant shall only be obligated to pay any deductible in connection therewith. Costs expended by Landlord in connection with the Landlord Repair Obligations shall be included in Operating Expenses to the extent allowed pursuant to the terms of Article 4, above. Landlord shall cooperate with Tenant to enforce any warranties that Landlord holds that could reduce Tenant's maintenance obligations under this Lease.

7.3 **Tenant's Right to Make Repairs**. Notwithstanding any provision to the contrary contained in this Lease, if Tenant provides written notice to Landlord of an event or circumstance which requires the action of Landlord under this Lease with respect to repair and/or maintenance required in the Premises, including repairs to the portions of the Building located within the Premises that are Landlord's responsibility under Section 7.4 (the "**Base Building**"), which event or circumstance with respect to the Base Building materially and adversely affects the conduct of Tenant's business from the Premises, and Landlord fails to commence corrective action within a reasonable period of time, given the circumstances, after the receipt of such notice, but in any event not later than thirty (30) days after receipt of said notice (unless Landlord's obligation cannot reasonably be performed within thirty (30) days, in which event Landlord shall be allowed additional time as is reasonably necessary to perform the obligation so long as Landlord begins performance within the initial thirty (30) days and diligently pursues performance to completion), or, in the event of an Emergency (as defined below), not later than five (5) business days after receipt of such notice, then Tenant shall have the right to undertake such actions as may be reasonably necessary to make such repairs if Landlord thereafter fails to commence corrective action within five (5) business days following Landlord's receipt of a second written notice from Tenant specifying that Tenant will undertake such actions if Landlord fails to timely do so (provided that such notice shall include the following language in bold, capitalized text: "**IF LANDLORD FAILS TO COMMENCE THE REPAIRS DESCRIBED IN THIS LETTER WITHIN FIVE (5) BUSINESS DAYS FROM LANDLORD'S RECEIPT OF THIS LETTER, TENANT WILL PERFORM SUCH REPAIRS AT**

LANDLORD'S EXPENSE"; provided, however, that in no event shall Tenant undertake any actions that could materially or adversely affect the Base Building. Notwithstanding the foregoing, in the event of an Emergency, no second written notice shall be required as long as Tenant advises Landlord in the first written notice of Tenant's intent to perform such Emergency repairs if Landlord does not commence the same within such five (5) business day period, utilizing the language required in second notices. If such action was required under the terms of this Lease to be taken by Landlord and was not commenced by Landlord within such five (5) business day period and thereafter diligently pursued to completion, then Tenant shall be entitled to prompt reimbursement by Landlord of the reasonable out-of-pocket third-party costs and expenses actually incurred by Tenant in taking such action. If Tenant undertakes such corrective actions pursuant to this Section 7.3, then (a) the insurance and indemnity provisions set forth in this Lease shall apply to Tenant's performance of such corrective actions, (b) Tenant shall proceed in accordance with all applicable laws, (c) Tenant shall retain to perform such corrective actions only such reputable contractors and suppliers as are duly licensed and qualified, (d) Tenant shall effect such repairs in a good and workmanlike and commercially reasonable manner, (e) Tenant shall use new or like new materials, and (f) Tenant shall take reasonable efforts to minimize any material interference or impact on the other tenants and occupants of the Building. Promptly following completion of any work taken by Tenant pursuant to the terms of this Section 7.5, Tenant shall deliver a detailed invoice of the work completed, the materials used and the costs relating thereto, and Landlord shall reimburse Tenant the amounts expended by Tenant in connection with such work, provided that Landlord shall have the right to reasonably object if Landlord claims that such action did not have to be taken by Landlord pursuant to the terms of this Lease or that the charges are excessive (in which case Landlord shall pay the amount it contends would not have been excessive). For purposes of this Section 7.5, an "**Emergency**" shall mean an event threatening immediate and material danger to people located in the Building or immediate, material damage to the Building, Base Building, or creating a realistic possibility of an immediate and material interference with, or immediate and material interruption of a material aspect of Tenant's business operations.

8. ADDITIONS AND ALTERATIONS

8.1 **Landlord's Consent to Alterations**. Tenant may not make any improvements, alterations, additions or changes to the Premises or any mechanical, plumbing or HVAC facilities or systems pertaining to the Premises (collectively, the "**Alterations**") without first procuring the prior written consent of Landlord to such Alterations, which consent shall be requested by Tenant not less than ten (10) business days prior to the commencement thereof, and which consent shall not be unreasonably withheld by Landlord, provided it shall be deemed reasonable for Landlord to withhold its consent to any Alteration which adversely affects the structural portions or the systems or equipment of the Building or is visible from the exterior of the Building. Notwithstanding the foregoing, Tenant shall be permitted to make Alterations following ten (10) business days' notice to Landlord (as to Alterations costing more than $10,000 only), but without Landlord's prior consent, to the extent that such Alterations (i) do not affect the building systems or equipment (other than minor changes such as adding or relocating electrical outlets and thermostats), (ii) are not visible from the exterior of the Building, and (iii) cost less than $50,000.00 for a particular job of work. The construction of the Tenant Improvements to the Premises shall be governed by the terms of the Tenant Work Letter and not the terms of this Article 8.

8.2 **Manner of Construction**. Landlord may impose, as a condition of its consent to any and all Alterations or repairs of the Premises or about the Premises, such requirements as Landlord in its reasonable discretion may deem desirable, including, but not limited to, the requirement that upon Landlord's request, Tenant shall, at Tenant's expense, remove such Alterations upon the expiration or any early termination of the Lease Term. Tenant shall construct such Alterations and perform such repairs in a good and workmanlike manner, in conformance with any and all applicable federal, state, county or municipal laws, rules and regulations and pursuant to a valid building permit, issued by the city in which the Building is located (or other applicable governmental authority). Tenant shall not use (and upon notice from Landlord shall cease using) contractors, services, workmen, labor, materials or equipment that, in Landlord's reasonable judgment, would disturb labor harmony with the workforce or trades engaged in performing other work, labor or services in or about the Building or the Common Areas. Upon completion of any Alterations, Tenant shall deliver to Landlord final lien waivers from all contractors, subcontractors and materialmen who performed such work. In addition to Tenant's obligations under Article 9 of this Lease, upon completion of any Alterations, Tenant agrees to cause a Notice of Completion to be recorded in the office of the Recorder of the County in which the Project is located in accordance with Section 3093 of the Civil Code of the State of California or any successor statute, and Tenant shall deliver to the Project construction manager a reproducible copy of the "**as built**" drawings of the Alterations as well as all permits, approvals and other documents issued by any governmental agency in connection with the Alterations.

8.3 **Payment for Improvements**. In connection with any Alterations that affect the Building systems (other than minor changes such as adding or relocating electrical outlets and thermostats), or which have a cost in excess of $100,000, Tenant shall reimburse Landlord for Landlord's reasonable, actual, out-of-pocket costs and expenses actually incurred in connection with Landlord's review of such work.

8.4 **Construction Insurance**. In addition to the requirements of Article 10 of this Lease, in the event that Tenant makes any Alterations, prior to the commencement of such Alterations, Tenant shall provide Landlord with evidence that Tenant or Tenant's contractor carries "**Builder's All Risk**" insurance (to the extent that the cost of such work shall exceed $50,000) in an amount approved by Landlord covering the construction of such Alterations, and such other insurance as Landlord may reasonably require, it being understood and agreed that all of such Alterations shall be insured by Landlord pursuant to Article 10 of this Lease immediately upon completion thereof. In addition, Tenant's contractors and subcontractors shall be required to carry Commercial General Liability Insurance in an amount approved by Landlord and otherwise in accordance with the requirements of Article 10 of this Lease. In connection with Alterations with a cost in excess of $250,000, Landlord may, in its discretion, require Tenant to obtain a lien and completion bond or some alternate form of security satisfactory to Landlord in an amount sufficient to ensure the lien-free completion of such Alterations and naming Landlord as a co-obligee.

8.5 **Landlord's Property**. All Alterations, improvements, fixtures, equipment and/or appurtenances which may be installed or placed in or about the Premises, from time to time, shall be at the sole cost of Tenant and all Alterations and improvements, shall be and become the property of Landlord and remain in place at the Premises following the expiration or earlier termination of this Lease. Notwithstanding the foregoing, Landlord may, by written notice to Tenant given at the time it consents to an Alteration, require Tenant, at Tenant's expense, to remove any Alterations within the Premises and to repair any damage to the Premises and Building caused by such removal. If Tenant fails to complete such removal and/or to repair any damage caused by the removal of any Alterations, Landlord may do so and may charge the cost thereof to Tenant. Tenant hereby protects, defends, indemnifies and holds Landlord harmless from any liability, cost, obligation, expense or claim of lien in any manner relating to the installation, placement, removal or financing of any such Alterations, improvements, fixtures and/or equipment in, on or about the Premises, which obligations of Tenant shall survive the expiration or earlier termination of this Lease. Notwithstanding the foregoing, except to the extent the same are paid for by the Tenant Improvement Allowance, the items set forth in **Exhibit F** attached hereto (the "**Tenant's Property**") shall at all times be and remain Tenant's property. **Exhibit F** may be updated from time to time by agreement of the parties. Tenant may remove the Tenant's Property from the Premises at any time, provided that Tenant repairs all damage caused by such removal. Landlord shall have no lien or other interest in the Tenant's Property.

9. COVENANT AGAINST LIENS Tenant shall keep the Project and Premises free from any liens or encumbrances arising out of the work performed, materials furnished or obligations incurred by or on behalf of Tenant, and shall protect, defend, indemnify and hold Landlord harmless from and against any claims, liabilities, judgments or costs (including, without limitation, reasonable attorneys' fees and costs) arising out of same or in connection therewith. Except as to Alterations as to which no notice is required under the second sentence of Section 8.1, Tenant shall give Landlord notice at least ten (10) business days prior to the commencement of any such work on the Premises (or such additional time as may be necessary under applicable laws) to afford Landlord the opportunity of posting and recording appropriate notices of non-responsibility (to the extent applicable pursuant to then applicable laws). Tenant shall remove any such lien or encumbrance by bond or otherwise within ten (10) business days after notice by Landlord, and if Tenant shall fail to do so, Landlord may pay the amount necessary to remove such lien or encumbrance, without being responsible for investigating the validity thereof.

10. INSURANCE.

10.1 **Indemnification and Waiver**. Except as provided in Section 10.5 or to the extent due to the negligence, willful misconduct or violation of this Lease by Landlord or the Landlord Parties, Tenant hereby assumes all risk of damage to property in, upon or about the Premises from any cause whatsoever (including, but not limited to, any personal injuries resulting from a slip and fall in, upon or about the Premises) and agrees that Landlord, its partners, subpartners and their respective officers, agents, servants, employees, and independent contractors (collectively, "**Landlord Parties**") shall not be liable for, and are hereby released from any responsibility for, any damage either to person or property or resulting from the loss of use thereof, which damage is sustained by Tenant or by other persons claiming through Tenant. Tenant shall indemnify, defend, protect, and hold harmless the Landlord Parties from any and all loss, cost, damage, expense and liability (including without limitation court costs and reasonable attorneys' fees) incurred in connection with or arising from any cause in or on the Premises (including, but not limited to, a slip and fall), any acts, omissions or negligence of Tenant or of any person claiming by, through or under Tenant, or of the contractors, agents, servants, employees, invitees, guests or licensees of Tenant or any such person, in, on or about the Project or any breach of the terms of this Lease, either prior to, during, or after the expiration of the Lease Term, provided that the terms of the foregoing indemnity and release shall not apply to the negligence or willful misconduct of Landlord or its agents, employees, contractors, licensees or invitees, or Landlord's violation of this Lease. Should Landlord be named as a defendant in any suit brought against Tenant in connection with or arising out of Tenant's occupancy of the Premises, Tenant shall pay to Landlord its costs and expenses incurred in such suit, including without limitation, its actual professional fees such as reasonable appraisers', accountants' and attorneys' fees. Notwithstanding anything to the contrary in this Lease, Landlord shall not be released or indemnified from, and shall indemnify, defend, protect and hold harmless Tenant from, all losses, damages, liabilities, claims, attorneys' fees, costs and expenses arising from the gross negligence or willful misconduct of Landlord or its agents, contractors, licensees or invitees, or a violation of Landlord's obligations or representations under this Lease. The provisions of this Section 10.1 shall survive the expiration or sooner termination of this Lease with respect to any claims or liability arising in connection with any event occurring prior to such expiration or termination.

10.2 **Tenant's Compliance With Landlord's Property Insurance**. Landlord shall insure the Building, Tenant Improvements and any Alterations during the Lease Term against loss or damage under an "all risk" property insurance policy. Such coverage shall be in such amounts, from such companies, and on such other terms and conditions, as Landlord may from time to time reasonably determine. Additionally, at the option of Landlord, such insurance coverage may include the risks of earthquakes and/or flood damage and additional hazards, a rental loss endorsement and one or more loss payee endorsements in favor of the holders of any mortgages or deeds of trust encumbering the interest of Landlord in the Building or the ground or underlying lessors of the Building, or any portion thereof. The costs of such insurance shall be included in Operating Expenses, subject to the terms of Section 4.2.4. Tenant shall, at Tenant's expense, comply with all insurance company requirements pertaining to the use of the Premises. If Tenant's conduct or use of the Premises causes any increase in the premium for such insurance policies then Tenant shall reimburse Landlord for any such increase. Tenant, at Tenant's expense, shall comply with all rules, orders, regulations or requirements of the American Insurance Association (formerly the National Board of Fire Underwriters) and with any similar body. Notwithstanding anything to the contrary in this Lease, Tenant shall not be required to comply with or cause the Premises to comply with any laws, rules, regulations or insurance requirements requiring the construction of alterations unless such compliance is necessitated solely due to Tenant's particular use of the Premises.

10.3 **Tenant's Insurance**. Tenant shall maintain the following coverages in the following amounts during the Lease Term (except Tenant shall carry the insurance described in Section 10.3.1 during any period in which it enters the Premises).

10.3.1 Commercial General Liability Insurance on an occurrence form covering the insured against claims of bodily injury and property damage (including loss of use thereof) arising out of Tenant's operations, and contractual liabilities including a contractual coverage for limits of liability (which limits may be met together with umbrella liability insurance) of not less than:

Bodily Injury and	$4,000,000 each occurrence
Property Damage Liability	$4,000,000 annual aggregate
Personal Injury Liability	$4,000,000 annual aggregate

10.3.2 Property Insurance covering all office furniture, business and trade fixtures, office and lab equipment, free-standing cabinet work, movable partitions, merchandise and all other items of Tenant's property on the Premises installed by, for, or at the expense of Tenant. Such insurance shall be written on an "**all risks**" of physical loss or damage basis, for the full replacement cost value (subject to reasonable deductible amounts) new without deduction for depreciation of the covered items and in amounts that meet any co-insurance clauses of the policies of insurance and shall include coverage for damage or other loss caused by fire or other peril including, but not limited to, vandalism and malicious mischief, theft, water damage (excluding flood), including sprinkler leakage, bursting or stoppage of pipes, and explosion, and providing business interruption coverage for a period of ninety (90) days.

10.3.3 Business Income Interruption for ninety (90) days plus Extra Expense insurance in such amounts as will reimburse Tenant for actual direct or indirect loss of earnings attributable to the risks outlined in Section 10.3.2 above.

10.3.4 Worker's Compensation and Employer's Liability or other similar insurance pursuant to all applicable state and local statutes and regulations. The policy shall include a waiver of subrogation in favor of Landlord, its employees, Lenders and any property manager or partners.

10.4 **Form of Policies**. The minimum limits of policies of insurance required of Tenant under this Lease shall in no event limit the liability of Tenant under this Lease. Such insurance shall (i) name Landlord, its subsidiaries and affiliates, its property manager (if any) and any other party the Landlord so specifies, as an additional insured on the liability insurance, including Landlord's managing agent, if any; (ii) be issued by an insurance company having a rating of not less than A-:VII in Best's Insurance Guide or which is otherwise acceptable to Landlord and authorized to do business in the State of California; and (iv) be primary insurance as to all claims thereunder and provide that any insurance carried by Landlord is excess and is non-contributing with any insurance required of Tenant. Tenant shall not cause said insurance to be canceled or coverage changed unless thirty (30) days' prior written notice shall have been given to Landlord and any mortgagee of Landlord (unless such cancellation is the result of non-payment of premiums, in which case not less than five (5) days' notice shall be provided). Tenant shall deliver said policy or policies or certificates thereof to Landlord on or before the Lease Commencement Date and at least ten (10) days before the expiration dates thereof. In the event Tenant shall fail to procure such insurance, or to deliver such policies or certificate, Landlord may, at its option, procure such policies for the account of Tenant, and the cost thereof shall be paid to Landlord within five (5) days after delivery to Tenant of bills therefor.

10.5 **Subrogation**. Landlord and Tenant hereby agree to look solely to, and seek recovery only from, their respective insurance carriers in the event of a property or business interruption loss to the extent that such coverage is agreed to be provided hereunder, notwithstanding the negligence of either party. Notwithstanding anything to the contrary in this Lease, the parties each hereby waive all rights and claims against each other for such losses, and waive all rights of subrogation of their respective insurers. The parties agree that their respective insurance policies do now, or shall, contain the waiver of subrogation.

10.6 **Additional Insurance Obligations**. Tenant shall carry and maintain during the entire Lease Term, at Tenant's sole cost and expense, increased amounts of the insurance required to be carried by Tenant pursuant to this Article 10 and such other reasonable types of insurance coverage and in such reasonable amounts covering the Premises and Tenant's operations therein, as may be reasonably requested by Landlord or Landlord's lender, but in no event in excess of the amounts and types of insurance then being required by landlords of buildings comparable to and in the vicinity of the Building.

11. DAMAGE AND DESTRUCTION

11.1 **Repair of Damage to Premises by Landlord**. Tenant shall promptly notify Landlord of any damage to the Premises resulting from fire or any other casualty. If the Premises or any Common Areas serving or providing access to the Premises shall be damaged by fire or other casualty, Landlord shall promptly and diligently, subject to reasonable delays for insurance adjustment or other matters beyond Landlord's reasonable control, and subject to all other terms of this Article 11, restore the Premises and such Common Areas. Such restoration shall be

to substantially the same condition of the Premises and the Common Areas prior to the casualty, except for modifications required by zoning and building codes and other laws or any other modifications to the Common Areas deemed desirable by Landlord, which are consistent with the character of the Project, provided that access to the Premises shall not be materially impaired. Landlord shall not be liable for any inconvenience or annoyance to Tenant or its visitors, or injury to Tenant's business resulting in any way from such damage or the repair thereof; provided however, that if such fire or other casualty shall have damaged the Premises or Common Areas necessary to Tenant's occupancy, and the damaged portions of the Premises are not occupied by Tenant as a result thereof, then during the time and to the extent the Premises are unfit for occupancy, the Rent shall be abated in proportion to the ratio that the amount of rentable square feet of the Premises which is unfit for occupancy for the purposes permitted under this Lease bears to the total rentable square feet of the Premises.

11.2 **Landlord's Option to Repair**. Notwithstanding the terms of Section 11.1 of this Lease, Landlord may elect not to rebuild and/or restore the Premises, Building and/or Project, and instead terminate this Lease, by notifying Tenant in writing of such termination within sixty (60) days after the date of discovery of the damage, such notice to include a termination date giving Tenant sixty (60) days to vacate the Premises, but Landlord may so elect only if the Building shall be damaged by fire or other casualty or cause, and one or more of the following conditions is present: (i) in Landlord's reasonable judgment, repairs cannot reasonably be completed within one (1) year after the date of discovery of the damage (when such repairs are made without the payment of overtime or other premiums); (ii) the damage is due to a risk that Landlord is not required to insure under this Lease, and the cost of restoration exceed five percent (5%) of the replacement cost of the Building (unless Tenant agrees to pay any uninsured amount in excess of such five percent (5%)); or (iii) the damage occurs during the last twelve (12) months of the Lease Term and will take more than sixty (60) days to restore; provided, however, that if Landlord does not elect to terminate this Lease pursuant to Landlord's termination right as provided above, and the repairs cannot, in the reasonable opinion of Landlord, be completed within seven (7) months after the date of discovery of the damage (or are not in fact completed within eight (8) months after the date of discovery of the damage), Tenant may elect, no earlier than sixty (60) days after the date of the damage and not later than ninety (90) days after the date of such damage, or within thirty (30) days after such repairs are not timely completed, to terminate this Lease by written notice to Landlord effective as of the date specified in the notice, which date shall not be less than thirty (30) days nor more than sixty (60) days after the date such notice is given by Tenant.

11.3 **Waiver of Statutory Provisions**. The provisions of this Lease, including this Article 11, constitute an express agreement between Landlord and Tenant with respect to any and all damage to, or destruction of, all or any part of the Premises, the Building or the Project, and any statute or regulation of the State of California, including, without limitation, Sections 1932(2) and 1933(4) of the California Civil Code, with respect to any rights or obligations concerning damage or destruction in the absence of an express agreement between the parties, and any other statute or regulation, now or hereafter in effect, shall have no application to this Lease or any damage or destruction to all or any part of the Premises, the Building or the Project.

12. NONWAIVER No provision of this Lease shall be deemed waived by either party hereto unless expressly waived in a writing signed thereby. The waiver by either party hereto of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of any subsequent breach of same or any other term, covenant or condition herein contained. The subsequent acceptance of Rent hereunder by Landlord shall not be deemed to be a waiver of any preceding breach by Tenant of any term, covenant or condition of this Lease, other than the failure of Tenant to pay the particular Rent so accepted, regardless of Landlord's knowledge of such preceding breach at the time of acceptance of such Rent. No acceptance of a lesser amount than the Rent herein stipulated shall be deemed a waiver of Landlord's right to receive the full amount due, nor shall any endorsement or statement on any check or payment or any letter accompanying such check or payment be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the full amount due. No receipt of monies by Landlord from Tenant after the termination of this Lease shall in any way alter the length of the Lease Term or of Tenant's right of possession hereunder, or after the giving of any notice shall reinstate, continue or extend the Lease Term or affect any notice given Tenant prior to the receipt of such monies, it being agreed that after the service of notice or the commencement of a suit, or after final judgment for possession of the Premises, Landlord may receive and collect any Rent due, and the payment of said Rent shall not waive or affect said notice, suit or judgment.

13. CONDEMNATION If the whole or any part of the Premises shall be taken by power of eminent domain or condemned by any competent authority for any public or quasi-public use or purpose, or if any adjacent property or street shall be so taken or condemned, or reconfigured or vacated by such authority in such manner as to require the use or reconstruction of any part of the Premises, or if Landlord shall grant a deed or other instrument in lieu of such taking by eminent domain or condemnation, Landlord shall have the option to terminate this Lease effective as of the date possession is required to be surrendered to the authority. Tenant shall not because of such taking assert any claim against Landlord or the authority for any compensation because of such taking and Landlord shall be entitled to the entire award or payment in connection therewith, except that Tenant shall have the right to file any separate claim available to Tenant for any taking of Tenant's personal property and fixtures belonging to Tenant and removable by Tenant upon expiration of the Lease Term pursuant to the terms of this Lease, for moving expenses, for the unamortized value of any improvements paid for by Tenant and for the Lease "bonus value", so long as such claims are payable separately to Tenant. All Rent shall be apportioned as of the date of such termination. If any part of the Premises shall be taken, and this Lease shall not be so terminated, the Rent shall be proportionately abated. Tenant hereby waives any and all rights it might otherwise have pursuant to Section 1265.130 of The California Code of Civil Procedure. Notwithstanding anything to the contrary contained in this Article 13, in the event of a temporary taking of all or any portion of the Premises for a period of one hundred and eighty (180) days or less, then this Lease shall not terminate but the Base Rent and the Additional Rent shall be abated for the period of such taking in proportion to the ratio that the amount of rentable square feet of the Premises taken bears to the total rentable square feet of the Premises. Landlord shall be entitled to receive the entire award made in connection with any such temporary taking.

14. ASSIGNMENT AND SUBLETTING

14.1 **Transfers**. Tenant shall not, without the prior written consent of Landlord, assign, mortgage, pledge, hypothecate, encumber, or permit any lien to attach to, or otherwise transfer, this Lease or any interest hereunder, permit any assignment, or other transfer of this Lease or any interest hereunder by operation of law, sublet the Premises or any part thereof, or enter into any license or concession agreements or otherwise permit the occupancy or use of the Premises or any part thereof by any persons other than Tenant and its employees and contractors (all of the foregoing are hereinafter sometimes referred to collectively as "**Transfers**" and any person to whom any Transfer is made or sought to be made is hereinafter sometimes referred to as a "**Transferee**"). If Tenant desires Landlord's consent to any Transfer, Tenant shall notify Landlord in writing, which notice (the "**Transfer Notice**") shall include (i) the proposed effective date of the Transfer, which shall not be less than thirty (30) days nor more than one hundred eighty (180) days after the date of delivery of the Transfer Notice, (ii) a description of the portion of the Premises to be transferred (the "**Subject Space**"), (iii) all of the terms of the proposed Transfer and the consideration therefor, including calculation of the "**Transfer Premium**", as that term is defined in Section 14.3 below, in connection with such Transfer, the name and address of the proposed Transferee, and a copy of all existing executed and/or proposed documentation pertaining to the proposed Transfer, and (iv) current financial statements of the proposed Transferee certified by an officer, partner or owner thereof, and any other information reasonably required by Landlord which will enable Landlord to determine the financial responsibility, character, and reputation of the proposed Transferee, nature of such Transferee's business and proposed use of the Subject Space. Any Transfer made without Landlord's prior written consent shall, at Landlord's option, be null, void and of no effect, and shall, at Landlord's option, constitute a default by Tenant under this Lease. Whether or not Landlord consents to any proposed Transfer, Tenant shall pay Landlord's reasonable review and processing fees, as well as any reasonable professional fees (including, without limitation, attorneys', accountants', architects', engineers' and consultants' fees) incurred by Landlord (not to exceed $3,500 in the aggregate for any particular Transfer), within thirty (30) days after written request by Landlord.

14.2 **Landlord's Consent**. Landlord shall not unreasonably withhold or delay its consent to any proposed Transfer of the Subject Space to the Transferee on the terms specified in the Transfer Notice and shall respond to Tenant's consent request within forty-five (45) days following receipt of such request and the documentation required by this Lease in connection therewith. Without limitation as to other reasonable grounds for withholding consent, the parties hereby agree that it shall be reasonable under this Lease and under any applicable law for Landlord to withhold consent to any proposed Transfer where one or more of the following apply:

14.2.1 The Transferee is of a character or reputation or engaged in a business which is not consistent with the quality of the Building or the Project;

14.2.2 The Transferee is either a governmental agency or instrumentality thereof;

14.2.3 The Transferee is not a party of reasonable financial worth and/or financial stability in light of the responsibilities to be undertaken in connection with the Transfer on the date consent is requested; or

14.2.4 The proposed Transfer would cause a violation of another lease for space in the Project, or would give an occupant of the Project a right to cancel its lease.

If Landlord consents to any Transfer pursuant to the terms of this Section 14.2 (and does not exercise any recapture rights Landlord may have under Section 14.4 of this Lease), Tenant may within six (6) months after Landlord's consent, but not later than the expiration of said six-month period, enter into such Transfer of the Premises or portion thereof, upon substantially the same terms and conditions as are set forth in the Transfer Notice furnished by Tenant to Landlord pursuant to Section 14.1 of this Lease, provided that if there are any changes in the terms and conditions from those specified in the Transfer Notice such that Landlord would initially have been entitled to refuse its consent to such Transfer under this Section 14.2, Tenant shall again submit the Transfer to Landlord for its approval and other action under this Article 14 (including Landlord's right of recapture, if any, under Section 14.4 of this Lease). Notwithstanding anything to the contrary in this Lease, if Tenant or any proposed Transferee claims that Landlord has unreasonably withheld or delayed its consent under Section 14.2 or otherwise has breached or acted unreasonably under this Article 14, their sole remedies shall be a suit for contract damages (other than damages for injury to, or interference with, Tenant's business including, without limitation, loss of profits, however occurring) or declaratory judgment and an injunction for the relief sought, and Tenant hereby waives all other remedies, including, without limitation, any right at law or equity to terminate this Lease, on its own behalf and, to the extent permitted under all applicable laws, on behalf of the proposed Transferee.

14.3 **Transfer Premium**. If Landlord consents to a Transfer, as a condition thereto which the parties hereby agree is reasonable, Tenant shall pay to Landlord fifty percent (50%) of any "**Transfer Premium**," as that term is defined in this Section 14.3, received by Tenant from such Transferee. "**Transfer Premium**" shall mean all rent, additional rent or other consideration payable by such Transferee in connection with the Transfer in excess of the Rent and Additional Rent payable by Tenant under this Lease during the term of the Transfer on a per rentable square foot basis if less than all of the Premises is transferred, and after deduction of (i) any costs of improvements made to the Subject Space in connection with such Transfer, (ii) brokerage commissions paid in connection with such Transfer, and (iii) reasonable legal fees incurred in connection with such Transfer. "**Transfer Premium**" shall also include, but not be limited to, key money, bonus money or other cash consideration paid by Transferee to Tenant in connection with such Transfer, and any payment in excess of fair market value for services rendered by Tenant to Transferee or for assets, fixtures, inventory, equipment, or furniture transferred by Tenant to Transferee in connection with such Transfer. The determination of the amount of Landlord's applicable share of the Transfer Premium shall be made on a monthly basis as rent or other consideration is received by Tenant under the Transfer.

14.4 **Landlord's Option as to Subject Space**. Notwithstanding anything to the contrary contained in this Article 14, in the event Tenant contemplates a Transfer other than to a Permitted Transferee which, together with all prior Transfers then remaining in effect, would cause fifty percent (50%) or more of the Premises to be Transferred for more than fifty percent (50%) of the then remaining Lease Term (taking into account any extension of the Lease Term which has irrevocably exercised by Tenant), Tenant shall give Landlord notice (the "**Intention to Transfer Notice**") of such contemplated Transfer (whether or not the contemplated Transferee or the terms of such contemplated Transfer have been determined). The Intention to Transfer Notice shall specify the portion of and amount of rentable square feet of the Premises which Tenant intends to Transfer in the subject Transfer (the "**Contemplated Transfer Space**"), the contemplated date of commencement of the Contemplated Transfer (the "**Contemplated Effective Date**"), and the contemplated length of the term of such contemplated Transfer. Thereafter, Landlord shall have the option, by giving written notice to Tenant within thirty (30) days after receipt of any Intention to Transfer Notice, to recapture the Contemplated Transfer Space. Such recapture shall cancel and terminate this Lease with respect to such Contemplated Transfer Space as of the Contemplated Effective Date. In the event of a recapture by Landlord, if this Lease shall be canceled with respect to less than the entire Premises, the Rent reserved herein shall be prorated on the basis of the number of rentable square feet retained by Tenant in proportion to the number of rentable square feet contained in the Premises, and this Lease as so amended shall continue thereafter in full force and effect, and upon

request of either party, the parties shall execute written confirmation of the same. If Landlord declines, or fails to elect in a timely manner, to recapture such Contemplated Transfer Space under this Section 14.4, then, subject to the other terms of this Article 14, for a period of nine (9) months (the "**Nine Month Period**") commencing on the last day of such thirty (30) day period, Landlord shall not have any right to recapture the Contemplated Transfer Space with respect to any Transfer made during the Nine Month Period, provided that any such Transfer is substantially on the terms set forth in the Intention to Transfer Notice, and provided further that any such Transfer shall be subject to the remaining terms of this Article 14. If such a Transfer is not so consummated within the Nine Month Period (or if a Transfer is so consummated, then upon the expiration of the term of any Transfer of such Contemplated Transfer Space consummated within such Nine Month Period), Tenant shall again be required to submit a new Intention to Transfer Notice to Landlord with respect any contemplated Transfer, as provided above in this Section 14.4. Tenant shall not be required to provide a separate Intention to Transfer Notice and Tenant's request for Landlord's consent to a Transfer shall satisfy Tenant's obligations in this Section 14.4.

14.5 **Effect of Transfer**. If Landlord consents to a Transfer, (i) the terms and conditions of this Lease shall in no way be deemed to have been waived or modified, (ii) such consent shall not be deemed consent to any further Transfer by either Tenant or a Transferee, (iii) Tenant shall deliver to Landlord, promptly after execution, an original executed copy of all documentation pertaining to the Transfer in form reasonably acceptable to Landlord, (iv) Tenant shall furnish upon Landlord's request a complete statement, certified by an independent certified public accountant, or Tenant's chief financial officer, setting forth in detail the computation of any Transfer Premium Tenant has derived and shall derive from such Transfer, and (v) no Transfer relating to this Lease or agreement entered into with respect thereto, whether with or without Landlord's consent, shall relieve Tenant or any guarantor of the Lease from any liability under this Lease, including, without limitation, in connection with the Subject Space. Landlord or its authorized representatives shall have the right at all reasonable times to audit the books, records and papers of Tenant relating to any Transfer, and shall have the right to make copies thereof. If the Transfer Premium respecting any Transfer shall be found understated, Tenant shall, within thirty (30) days after demand, pay the deficiency, and if understated by more than two percent (2%), Tenant shall pay Landlord's costs of such audit.

14.6 **Additional Transfers**. For purposes of this Lease, the term "**Transfer**" shall also include if Tenant is a partnership, the withdrawal or change, voluntary, involuntary or by operation of law, of fifty percent (50%) or more of the partners, or transfer of fifty percent (50%) or more of partnership interests, within a twelve (12)-month period, or the dissolution of the partnership without immediate reconstitution thereof.

14.7 **Occurrence of Default**. Any Transfer hereunder shall be subordinate and subject to the provisions of this Lease, and if this Lease shall be terminated during the term of any Transfer, Landlord shall have the right to: (i) treat such Transfer as cancelled and repossess the Subject Space by any lawful means, or (ii) require that such Transferee attorn to and recognize Landlord as its landlord under any such Transfer. If Tenant shall be in default under this Lease, Landlord is hereby irrevocably authorized, as Tenant's agent and attorney-in-fact, to direct any Transferee to make all payments under or in connection with the Transfer directly to Landlord (which Landlord shall apply towards Tenant's obligations under this Lease) until such default is cured. Such Transferee shall rely on any representation by Landlord that Tenant is in default hereunder, without any need for confirmation thereof by Tenant. Upon any assignment, the assignee shall assume in writing all obligations and covenants of Tenant thereafter to be performed or observed under this Lease. No collection or acceptance of rent by Landlord from any Transferee shall be deemed a waiver of any provision of this Article 14 or the approval of any Transferee or a release of Tenant from any obligation under this Lease, whether theretofore or thereafter accruing. In no event shall Landlord's enforcement of any provision of this Lease against any Transferee be deemed a waiver of Landlord's right to enforce any term of this Lease against Tenant or any other person. If Tenant's obligations hereunder have been guaranteed, Landlord's consent to any Transfer shall not be effective unless the guarantor also consents to such Transfer.

14.8 **Non-Transfers**. Notwithstanding anything to the contrary contained in this Article 14, (i) an assignment or subletting of all or a portion of the Premises to an affiliate of Tenant (an entity which is controlled by, controls, or is under common control with, Tenant), (ii) an assignment of the Premises to an entity which acquires all or substantially all of the assets or interests (partnership, stock or other) of Tenant, (iii) an assignment of the Premises to an entity which is the resulting entity of a merger or consolidation of Tenant with another entity, or (iv) a change of Control or the sale of corporate shares of capital stock in Tenant in connection with a private financing or public

offering of Tenant's stock on a nationally-recognized stock exchange (collectively, a "**Permitted Transferee**"), shall not be deemed a Transfer under this Article 14, provided that (A) Tenant notifies Landlord of any such assignment or sublease and promptly supplies Landlord with any documents or information requested by Landlord regarding such assignment or sublease or such affiliate, (B) such assignment or sublease is not a subterfuge by Tenant to avoid its obligations under this Lease, (C) such Permitted Transferee shall be of a character and reputation consistent with the quality of the Building, and (D) such Permitted Transferee described in subpart (ii) or (iii) above shall have a tangible net worth (not including goodwill as an asset) computed in accordance with generally accepted accounting principles ("**Net Worth**") at least equal to the Net Worth of Tenant on the day immediately preceding the effective date of such assignment or sublease. An assignee of Tenant's entire interest that is also a Permitted Transferee may also be known as a "**Permitted Assignee**". "**Control**," as used in this Section 14.8, shall mean the ownership, directly or indirectly, of at least fifty-one percent (51%) of the voting securities of, or possession of the right to vote, in the ordinary direction of its affairs, of at least fifty-one percent (51%) of the voting interest in, any person or entity. No such permitted assignment or subletting shall serve to release Tenant from any of its obligations under this Lease.

15. SURRENDER OF PREMISES; OWNERSHIP AND REMOVAL OF TRADE FIXTURES

15.1 **Surrender of Premises**. No act or thing done by Landlord or any agent or employee of Landlord during the Lease Term shall be deemed to constitute an acceptance by Landlord of a surrender of the Premises unless such intent is specifically acknowledged in writing by Landlord. The delivery of keys to the Premises to Landlord or any agent or employee of Landlord shall not constitute a surrender of the Premises or effect a termination of this Lease, whether or not the keys are thereafter retained by Landlord, and notwithstanding such delivery Tenant shall be entitled to the return of such keys at any reasonable time upon request until this Lease shall have been properly terminated. The voluntary or other surrender of this Lease by Tenant, whether accepted by Landlord or not, or a mutual termination hereof, shall not work a merger, and at the option of Landlord shall operate as an assignment to Landlord of all subleases or subtenancies affecting the Premises or terminate any or all such sublessees or subtenancies.

15.2 **Removal of Tenant Property by Tenant**. Upon the expiration of the Lease Term, or upon any earlier termination of this Lease, Tenant shall, subject to the provisions of this Article 15, quit and surrender possession of the Premises to Landlord in as good order and condition as when Tenant took possession and as thereafter improved by Landlord and/or Tenant, reasonable wear and tear, damage caused by casualty, repairs required as a result of condemnation, and repairs which are specifically made the responsibility of Landlord hereunder excepted. Upon such expiration or termination, Tenant shall, without expense to Landlord, remove or cause to be removed from the Premises all debris and rubbish, and such items of furniture, equipment, free-standing cabinet work, movable partitions (but not demountable walls) and other articles of personal property owned by Tenant or installed or placed by Tenant at its expense in the Premises, and such similar articles of any other persons claiming under Tenant, as Landlord may, in its sole discretion, require to be removed, and Tenant shall repair at its own expense all damage to the Premises and Building resulting from such removal.

15.3 **Environmental Assessment**. In connection with its surrender of the Premises, Tenant shall submit to Landlord, at least fifteen (15) days prior to the expiration date of this Lease (or in the event of an earlier termination of this Lease, as soon as reasonably possible following such termination), an environmental Assessment of the Premises by a competent and experienced environmental engineer or engineering firm reasonably satisfactory to Landlord (pursuant to a contract approved by Landlord and providing that Landlord can rely on the Environmental Assessment). If such Environmental Assessment reveals that remediation or Clean-up is required under any Environmental Laws that Tenant is responsible for under this Lease, Tenant shall submit a remediation plan prepared by a recognized environmental consultant and shall be responsible for all costs of remediation and Clean-up, as more particularly provided in **Section 5.3**, above.

15.4 **Condition of the Building and Premises Upon Surrender**. In addition to the above requirements of this Article 15, upon the expiration of the Lease Term, or upon any earlier termination of this Lease, Tenant shall, surrender the Premises and Building with Tenant having complied with all of Tenant's obligations under this Lease, including those relating to improvement, repair, maintenance, compliance with law, testing and other related obligations of Tenant set forth in Article 7 of this Lease. In the event that the Building and Premises shall be

surrendered in a condition which does not comply with the terms of this Section 15.4, because Tenant failed to comply with its obligations set forth in Lease, then following thirty (30) days' notice to Tenant, during which thirty (30) day period Tenant shall have the right to cure such noncompliance, Landlord shall be entitled to expend all reasonable costs in order to cause the same to comply with the required condition upon surrender and Tenant shall immediately reimburse Landlord for all such costs upon notice and, commencing on the later of the termination of this Lease and three (3) business days after Landlord's delivery of notice of such failure and that it elects to treat such failure as a holdover, Tenant shall be deemed during the period that Tenant or Landlord, as the case may be, perform obligations relating to the Surrender Improvements to be in holdover under Article 16 of this Lease.

16. HOLDING OVER If Tenant holds over after the expiration of the Lease Term or earlier termination thereof, with the express or implied consent of Landlord, such tenancy shall be from month-to-month only, and shall not constitute a renewal hereof or an extension for any further term. If Tenant holds over after the expiration of the Lease Term of earlier termination thereof, without the express or implied consent of Landlord, such tenancy shall be deemed to be a tenancy by sufferance only, and shall not constitute a renewal hereof or an extension for any further term. In either case, Base Rent shall be payable at a monthly rate equal to one hundred fifty percent (150%) of the Base Rent applicable during the last rental period of the Lease Term under this Lease. Such month-to-month tenancy or tenancy by sufferance, as the case may be, shall be subject to every other applicable term, covenant and agreement contained herein. Nothing contained in this Article 16 shall be construed as consent by Landlord to any holding over by Tenant, and Landlord expressly reserves the right to require Tenant to surrender possession of the Premises to Landlord as provided in this Lease upon the expiration or other termination of this Lease. The provisions of this Article 16 shall not be deemed to limit or constitute a waiver of any other rights or remedies of Landlord provided herein or at law. If Tenant fails to surrender the Premises upon the termination or expiration of this Lease, in addition to any other liabilities to Landlord accruing therefrom, Tenant shall protect, defend, indemnify and hold Landlord harmless from all loss, costs (including reasonable attorneys' fees) and liability resulting from such failure, including, without limiting the generality of the foregoing, any claims made by any succeeding tenant founded upon such failure to surrender and any lost profits to Landlord resulting therefrom.

17. ESTOPPEL CERTIFICATES Within ten (10) business days following a request in writing by Landlord, Tenant shall execute, acknowledge and deliver to Landlord an estoppel certificate, which, as submitted by Landlord, shall be substantially in the form of **Exhibit D**, attached hereto (or such other form as may be reasonably required by any prospective mortgagee or purchaser of the Project, or any portion thereof), indicating therein any exceptions thereto that may exist at that time, and shall also contain any other information reasonably requested by Landlord or Landlord's mortgagee or prospective mortgagee. Any such certificate may be relied upon by any prospective mortgagee or purchaser of all or any portion of the Project. Tenant shall execute and deliver whatever other instruments may be reasonably required for such purposes. At any time during the Lease Term, in connection with a sale or financing of the Building by Landlord, Landlord may require Tenant to provide Landlord with its most recent annual financial statement and annual financial statements of the preceding two (2) years. Such statements shall be prepared in accordance with generally accepted accounting principles and, if such is the normal practice of Tenant, shall be audited by an independent certified public accountant. Landlord shall hold such statements confidential. Failure of Tenant to timely execute, acknowledge and deliver such estoppel certificate or other instruments shall constitute an acceptance of the Premises and an acknowledgment by Tenant that statements included in the estoppel certificate are true and correct, without exception.

18. SUBORDINATION Landlord hereby represents and warrants to Tenant that the Project is not currently subject to any ground lease, or to the lien of any mortgage or deed of trust. This Lease shall be subject and subordinate to all future ground or underlying leases of the Building or Project and to the lien of any mortgage, trust deed or other encumbrances now or hereafter in force against the Building or Project or any part thereof, if any, and to all renewals, extensions, modifications, consolidations and replacements thereof, and to all advances made or hereafter to be made upon the security of such mortgages or trust deeds, unless the holders of such mortgages, trust deeds or other encumbrances, or the lessors under such ground lease or underlying leases, require in writing that this Lease be superior thereto. The subordination of this Lease to any such future ground or underlying leases of the Building or Project or to the lien of any mortgage, trust deed or other encumbrances, shall be subject to Tenant's receipt of a commercially reasonable subordination, non-disturbance, and attornment agreement in favor of Tenant. Tenant covenants and agrees in the event any proceedings are brought for the foreclosure of any such mortgage or deed in

lieu thereof (or if any ground lease is terminated), to attorn, without any deductions or set-offs whatsoever, to the lienholder or purchaser or any successors thereto upon any such foreclosure sale or deed in lieu thereof (or to the ground lessor), if so requested to do so by such purchaser or lienholder or ground lessor, and to recognize such purchaser or lienholder or ground lessor as the lessor under this Lease, provided such lienholder or purchaser or ground lessor shall agree to accept this Lease and not disturb Tenant's occupancy, so long as Tenant timely pays the rent and observes and performs the terms, covenants and conditions of this Lease to be observed and performed by Tenant. Landlord's interest herein may be assigned as security at any time to any lienholder. Tenant shall, within ten (10) days of request by Landlord, execute such further instruments or assurances as Landlord may reasonably deem necessary to evidence or confirm the subordination or superiority of this Lease to any such mortgages, trust deeds, ground leases or underlying leases. Tenant waives the provisions of any current or future statute, rule or law which may give or purport to give Tenant any right or election to terminate or otherwise adversely affect this Lease and the obligations of the Tenant hereunder in the event of any foreclosure proceeding or sale.

19. DEFAULTS; REMEDIES

19.1 **Events of Default**. The occurrence of any of the following shall constitute a default of this Lease by Tenant:

19.1.1 Any failure by Tenant to pay any Rent or any other charge required to be paid under this Lease, or any part thereof, when due unless such failure is cured within five (5) business days after notice; or

19.1.2 Except where a specific time period is otherwise set forth for Tenant's performance in this Lease, in which event the failure to perform by Tenant within such time period shall be a default by Tenant under this Section 19.1.2, any failure by Tenant to observe or perform any other provision, covenant or condition of this Lease to be observed or performed by Tenant where such failure continues for thirty (30) days after written notice thereof from Landlord to Tenant; provided that if the nature of such default is such that the same cannot reasonably be cured within a thirty (30) day period, Tenant shall not be deemed to be in default if it diligently commences such cure within such period and thereafter diligently proceeds to rectify and cure such default; or

19.1.3 Abandonment or vacation of all or a substantial portion of the Premises by Tenant while Tenant is in default under the Lease; or

19.1.4 The failure by Tenant to observe or perform according to the provisions of Articles 5, 14, 17 or 18 of this Lease where such failure continues for more than five (5) business days after notice from Landlord.

19.2 **Remedies Upon Default**. Upon the occurrence of any event of default by Tenant, Landlord shall have, in addition to any other remedies available to Landlord at law or in equity (all of which remedies shall be distinct, separate and cumulative), the option to pursue any one or more of the following remedies, each and all of which shall be cumulative and nonexclusive, without any notice or demand whatsoever.

19.2.1 Terminate this Lease, in which event Tenant shall immediately surrender the Premises to Landlord, and if Tenant fails to do so, Landlord may, without prejudice to any other remedy which it may have for possession or arrearages in rent, enter upon and take possession of the Premises and expel or remove Tenant and any other person who may be occupying the Premises or any part thereof, without being liable for prosecution or any claim or damages therefor; and Landlord may recover from Tenant the following:

(i) The worth at the time of award of the unpaid rent which has been earned at the time of such termination; plus

(ii) The worth at the time of award of the amount by which the unpaid rent which would have been earned after termination until the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(iii) The worth at the time of award of the amount by which the unpaid rent for the balance of the Lease Term after the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(iv) Any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or which in the ordinary course of things would be likely to result therefrom, specifically including but not limited to, in each case to the extent allocable to the remaining Lease Term, brokerage commissions and advertising expenses incurred to obtain a new tenant, expenses of remodeling the Premises or any portion thereof for a new tenant, whether for the same or a different use, and any special concessions made to obtain a new tenant; and

(v) At Landlord's election, such other amounts in addition to or in lieu of the foregoing as may be permitted from time to time by applicable law.

The term "**rent**" as used in this Section 19.2 shall be deemed to be and to mean all sums of every nature required to be paid by Tenant pursuant to the terms of this Lease, whether to Landlord or to others. As used in Sections 19.2.1(i) and (ii), above, the "worth at the time of award" shall be computed by allowing interest at the rate set forth in Article 25 of this Lease, but in no case greater than the maximum amount of such interest permitted by law. As used in Section 19.2.1(iii) above, the "**worth at the time of award**" shall be computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus one percent (1%).

19.2.2 Landlord shall have the remedy described in California Civil Code Section 1951.4 (lessor may continue lease in effect after lessee's breach and abandonment and recover rent as it becomes due, if lessee has the right to sublet or assign, subject only to reasonable limitations). Accordingly, if Landlord does not elect to terminate this Lease on account of any default by Tenant, Landlord may, from time to time, without terminating this Lease, enforce all of its rights and remedies under this Lease, including the right to recover all rent as it becomes due.

19.2.3 Landlord shall at all times have the rights and remedies (which shall be cumulative with each other and cumulative and in addition to those rights and remedies available under Sections 19.2.1 and 19.2.2, above, or any law or other provision of this Lease), without prior demand or notice except as required by applicable law, to seek any declaratory, injunctive or other equitable relief, and specifically enforce this Lease, or restrain or enjoin a violation or breach of any provision hereof.

19.3 **Subleases of Tenant**. If Landlord elects to terminate this Lease on account of any default by Tenant, as set forth in this Article 19, Landlord shall have the right to terminate any and all subleases, licenses, concessions or other consensual arrangements for possession entered into by Tenant and affecting the Premises or may, in Landlord's sole discretion, succeed to Tenant's interest in such subleases, licenses, concessions or arrangements. In the event of Landlord's election to succeed to Tenant's interest in any such subleases, licenses, concessions or arrangements, Tenant shall, as of the date of notice by Landlord of such election, have no further right to or interest in the rent or other consideration receivable thereunder.

19.4 **Efforts to Relet**. No re-entry, repairs, maintenance, changes, alterations and additions, appointment of a receiver to protect Landlord's interests hereunder, or any other action or omission by Landlord shall be construed as an election by Landlord to terminate this Lease or Tenant's right to possession, or to accept a surrender of the Premises, nor shall same operate to release Tenant in whole or in part from any of Tenant's obligations hereunder, unless express written notice of such intention is sent by Landlord to Tenant.

20. COVENANT OF QUIET ENJOYMENT Landlord covenants that Tenant, on paying the Rent, charges for services and other payments herein reserved and on keeping, observing and performing all the other terms, covenants, conditions, provisions and agreements herein contained on the part of Tenant to be kept, observed and performed, shall, during the Lease Term, peaceably and quietly have, hold and enjoy the Premises subject to the terms, covenants, conditions, provisions and agreements hereof without interference by any persons lawfully claiming by or through Landlord. The foregoing covenant is in lieu of any other covenant express or implied.

21. LETTER OF CREDIT

21.1 **Delivery of Letter of Credit**. Tenant shall deliver to Landlord, within ten (10) business days following Tenant's execution of this Lease, an unconditional, clean, irrevocable letter of credit (the "**L-C**") in the amount set forth in Section 8 of the Lease Summary (the "**L-C Amount**"), which L-C shall be issued by a money-center, solvent and nationally recognized bank (a bank which accepts deposits, maintains accounts, has a local San Francisco Bay Area office which will negotiate a letter of credit, and whose deposits are insured by the FDIC) reasonably acceptable to Landlord (such approved, issuing bank being referred to herein as the "**Bank**"), which Bank must have a rating from Standard and Poors Corporation of A- or better (or any equivalent rating thereto from any successor or substitute rating service selected by Lessor) and a letter of credit issuer rating from Moody's Investor Service of A3 or better (or any equivalent rating thereto from any successor rating agency thereto)) (collectively, the "**Bank's Credit Rating Threshold**"), and which L-C shall be in the form of **Exhibit G**, attached hereto, or another form reasonably acceptable to Landlord. Notwithstanding the foregoing, Landlord hereby approves Silicon Valley Bank as the Bank. Tenant shall pay all expenses, points and/or fees incurred by Tenant in obtaining the L-C. The L-C shall (i) be "callable" at sight, irrevocable and unconditional, (ii) be maintained in effect, whether through renewal or extension, for the period commencing on the date of this Lease and continuing until the date (the "**L-C Expiration Date**") that is no less than sixty (60) days after the expiration of the Lease Term as the same may be extended, and Tenant shall deliver a new L-C or certificate of renewal or extension to Landlord at least thirty (30) days prior to the expiration of the L-C then held by Landlord, without any action whatsoever on the part of Landlord, (iii) be fully assignable by Landlord, its successors and assigns, (iv) permit partial draws and multiple presentations and drawings, and (v) be otherwise subject to the Uniform Customs and Practices for Documentary Credits (1993-Rev), International Chamber of Commerce Publication #500, or the International Standby Practices-ISP 98, International Chamber of Commerce Publication #590. Landlord, or its then managing agent, shall have the right to draw down an amount up to the face amount of the L-C if any of the following shall have occurred or be applicable: (A) such amount is due to Landlord under the terms and conditions of this Lease, and has not been paid within applicable notice and cure periods (or, if Landlord is prevented by law from providing notice, within the period for payment set forth in the Lease), or (B) Tenant has filed a voluntary petition under the U. S. Bankruptcy Code or any state bankruptcy code (collectively, "**Bankruptcy Code**"), or (C) an involuntary petition has been filed against Tenant under the Bankruptcy Code that is not dismissed within thirty (30) days, or (D) the Lease has been rejected, or is deemed rejected, under Section 365 of the U.S. Bankruptcy Code, following the filing of a voluntary petition by Tenant under the Bankruptcy Code, or the filing of an involuntary petition against Tenant under the Bankruptcy Code, or (E) the Bank has notified Landlord that the L-C will not be renewed or extended through the L-C Expiration Date, and Tenant has not provided a replacement L-C that satisfies the requirements of this Lease at least thirty (30) days prior to such expiration, or (F) Tenant is placed into receivership or conservatorship, or becomes subject to similar proceedings under Federal or State law, or (G) Tenant executes an assignment for the benefit of creditors, or (H) if (1) any of the Bank's (other than Silicon Valley Bank) Fitch Ratings (or other comparable ratings to the extent the Fitch Ratings are no longer available) have been reduced below the Bank's Credit Rating Threshold, or (2) there is otherwise a material adverse change in the financial condition of the Bank (other than Silicon Valley Bank), and Tenant has failed to provide Landlord with a replacement letter of credit, conforming in all respects to the requirements of this Article 21 (including, but not limited to, the requirements placed on the issuing Bank more particularly set forth in this Section 21.1 above), in the amount of the applicable L-C Amount, within ten (10) days following Landlord's written demand therefor (with no other notice or cure or grace period being applicable thereto, notwithstanding anything in this Lease to the contrary) (each of the foregoing being an "**L-C Draw Event**"). The L-C shall be honored by the Bank regardless of whether Tenant disputes Landlord's right to draw upon the L-C. In addition, in the event the Bank is placed into receivership or conservatorship by the Federal Deposit Insurance Corporation or any successor or similar entity, then, effective as of the date such receivership or conservatorship occurs, said L-C shall be deemed to fail to meet the requirements of this Article 21, and, within ten (10) days following Landlord's notice to Tenant of such receivership or conservatorship (the "**L-C FDIC Replacement Notice**"), Tenant shall replace such L-C with a substitute letter of credit from a different issuer (which issuer shall meet or exceed the Bank's Credit Rating Threshold and shall otherwise be acceptable to Landlord in its reasonable discretion) and that complies in all respects with the requirements of this Article 21. If Tenant fails to replace such L-C with such conforming, substitute letter of credit pursuant to the terms and conditions of this Section 21.1, then, notwithstanding anything in this Lease to the contrary, Landlord shall have the right to declare Tenant in default of this Lease for which there shall be no notice or grace or cure periods being applicable thereto (other than the aforesaid ten (10) day period). Tenant shall be responsible for the payment of any

and all Tenant's and Bank's costs incurred with the review of any replacement L-C, which replacement is required pursuant to this Section or is otherwise requested by Tenant. In the event of an assignment by Tenant of its interest in the Lease (and irrespective of whether Landlord's consent is required for such assignment), the acceptance of any replacement or substitute letter of credit by Landlord from the assignee shall be subject to Landlord's prior written approval, in Landlord's reasonable discretion, and the actual and reasonable attorney's fees incurred by Landlord in connection with such determination shall be payable by Tenant to Landlord within ten (10) days of billing.

21.2 **Application of L-C**. Tenant hereby acknowledges and agrees that Landlord is entering into this Lease in material reliance upon the ability of Landlord to draw upon the L-C upon the occurrence of any L-C Draw Event. In the event of any L-C Draw Event, Landlord may, but without obligation to do so, and without notice to Tenant (except in connection with an L-C Draw Event under Section 21.1(H) above), draw upon the L-C, in part or in whole, in the amount necessary to cure any such L-C Draw Event and/or to compensate Landlord for any and all damages of any kind or nature sustained or which Landlord reasonably estimates that it will sustain resulting from Tenant's breach or default of the Lease or other L-C Draw Event and/or to compensate Landlord for any and all damages arising out of, or incurred in connection with, the termination of this Lease, including, without limitation, those specifically identified in Section 1951.2 of the California Civil Code. The use, application or retention of the L-C, or any portion thereof, by Landlord shall not prevent Landlord from exercising any other right or remedy provided by this Lease or by any applicable law, it being intended that Landlord shall not first be required to proceed against the L-C, and such L-C shall not operate as a limitation on any recovery to which Landlord may otherwise be entitled. Tenant agrees and acknowledges that (i) the L-C constitutes a separate and independent contract between Landlord and the Bank, (ii) Tenant is not a third party beneficiary of such contract, (iii) Tenant has no property interest whatsoever in the L-C or the proceeds thereof, and (iv) in the event Tenant becomes a debtor under any chapter of the Bankruptcy Code, Tenant is placed into receivership or conservatorship, and/or there is an event of a receivership, conservatorship or a bankruptcy filing by, or on behalf of, Tenant, neither Tenant, any trustee, nor Tenant's bankruptcy estate shall have any right to restrict or limit Landlord's claim and/or rights to the L-C and/or the proceeds thereof by application of Section 502(b)(6) of the U. S. Bankruptcy Code or otherwise.

21.3 **Maintenance of L-C by Tenant**. If, as a result of any drawing by Landlord of all or any portion of the L-C, the amount of the L-C shall be less than the L-C Amount, Tenant shall, within five (5) days thereafter, provide Landlord with additional letter(s) of credit in an amount equal to the deficiency, and any such additional letter(s) of credit shall comply with all of the provisions of this Article 21. Tenant further covenants and warrants that it will neither assign nor encumber the L-C or any part thereof and that neither Landlord nor its successors or assigns will be bound by any such assignment, encumbrance, attempted assignment or attempted encumbrance. Without limiting the generality of the foregoing, if the L-C expires earlier than the L-C Expiration Date, Landlord will accept a renewal thereof (such renewal letter of credit to be in effect and delivered to Landlord, as applicable, not later than thirty (30) days prior to the expiration of the L-C), which shall be irrevocable and automatically renewable as above provided through the L-C Expiration Date upon the same terms as the expiring L-C or such other terms as may be acceptable to Landlord in its sole discretion. If Tenant exercises its option to extend the Lease Term pursuant to Section 2.2 of this Lease then, not later than thirty (30) days prior to the commencement of the Option Term, Tenant shall deliver to Landlord a new L C or certificate of renewal or extension evidencing the L-C Expiration Date as thirty (30) days after the expiration of the Option Term. However, if the L-C is not timely renewed, or if Tenant fails to maintain the L-C in the amount and in accordance with the terms set forth in this Article 21, Landlord shall have the right to present the L-C to the Bank in accordance with the terms of this Article 21, and the proceeds of the L-C may be applied by Landlord against any Rent payable by Tenant under this Lease that is not paid when due and/or to pay for all losses and damages that Landlord has suffered or that Landlord reasonably estimates that it will suffer as a result of any breach or default by Tenant under this Lease. In the event Landlord elects to exercise its rights as provided above, (I) any unused proceeds shall constitute the property of Landlord (and not Tenant's property or, in the event of a receivership, conservatorship, or a bankruptcy filing by, or on behalf of, Tenant, property of such receivership, conservatorship or Tenant's bankruptcy estate) and need not be segregated from Landlord's other assets, and (II) Landlord agrees to pay to Tenant within thirty (30) days after the L-C Expiration Date the amount of any proceeds of the L-C received by Landlord and not applied against any Rent payable by Tenant under this Lease that was not paid when due or used to pay for any losses and/or damages suffered by Landlord (or reasonably estimated by Landlord that it will suffer) as a result of any breach or default by Tenant under this Lease; provided, however, that if prior to the L-C Expiration Date a voluntary petition is filed by Tenant, or an involuntary petition is filed against Tenant by

any of Tenant's creditors, under the Bankruptcy Code, then Landlord shall not be obligated to make such payment in the amount of the unused L-C proceeds until either all preference issues relating to payments under this Lease have been resolved in such bankruptcy or reorganization case or such bankruptcy or reorganization case has been dismissed. Notwithstanding anything to the contrary herein, if Landlord draws on the L-C due to Tenant's violation of this Lease beyond applicable notice and cure periods, such draw shall be in the amount required to cure such default. In addition, if Landlord draws on the L-C due to Tenant's failure to timely renew or provide a replacement L-C, such failure shall not be considered a default under this Lease and Landlord shall return such cash proceeds upon Tenant's presentation of a replacement L-C that satisfies the requirements of this Lease, subject to reasonable satisfaction of any preference risk to Landlord.

21.4 **Transfer and Encumbrance**. The L-C shall also provide that Landlord may, at any time and without notice to Tenant and without first obtaining Tenant's consent thereto, transfer (one or more times) all or any portion of its interest in and to the L-C to another party, person or entity, regardless of whether or not such transfer is from or as a part of the assignment by Landlord of its rights and interests in and to this Lease. In the event of a transfer of Landlord's interest in under this Lease, Landlord shall transfer the L-C, in whole or in part, to the transferee and thereupon Landlord shall, without any further agreement between the parties, be released by Tenant from all liability therefor, and it is agreed that the provisions hereof shall apply to every transfer or assignment of the whole of said L-C to a new landlord. In connection with any such transfer of the L-C by Landlord, Tenant shall, at Tenant's sole cost and expense, execute and submit to the Bank such applications, documents and instruments as may be necessary to effectuate such transfer and, Tenant shall be responsible for paying the Bank's transfer and processing fees in connection therewith; provided that, Landlord shall have the right (in its sole discretion), but not the obligation, to pay such fees on behalf of Tenant, in which case Tenant shall reimburse Landlord within ten (10) days after Tenant's receipt of an invoice from Landlord therefor.

21.5 **L-C Not a Security Deposit**. Landlord and Tenant (1) acknowledge and agree that in no event or circumstance shall the L-C or any renewal thereof or substitute therefor or any proceeds thereof be deemed to be or treated as a "security deposit" under any law applicable to security deposits in the commercial context, *including, but not limited to, Section 1950.7 of the California Civil Code, as such Section now exists or as it may be hereafter amended or succeeded* (the "**Security Deposit Laws**"), (2) acknowledge and agree that the L-C (including any renewal thereof or substitute therefor or any proceeds thereof) is not intended to serve as a security deposit, and the Security Deposit Laws shall have no applicability or relevancy thereto, and (3) waive any and all rights, duties and obligations that any such party may now, or in the future will, have relating to or arising from the Security Deposit Laws. *Tenant hereby* irrevocably waives and relinquishes *the provisions of Section 1950.7 of the California Civil Code* and any successor statute, and all other provisions of law, now or hereafter in effect, *which (x) establish the time frame by which a landlord must refund a security deposit under a lease, and/or (y) provide that a landlord may claim from a security deposit only those sums reasonably necessary to remedy defaults in the payment of rent, to repair damage caused by a tenant or to clean the premises, it being agreed that Landlord may, in addition, claim those sums specified in this* Article 21 *and/or those sums reasonably necessary to (a) compensate Landlord for any loss or damage caused by Tenant's breach of this Lease, including any damages Landlord suffers following termination of this Lease*, and/or (b) compensate Landlord for any and all damages arising out of, or incurred in connection with, the termination of this Lease, including, without limitation, those specifically identified in Section 1951.2 of the California Civil Code. Tenant agrees not to interfere in any way with any payment to Landlord of the proceeds of the L-C, either prior to or following a "draw" by Landlord of all or any portion of the L-C, regardless of whether any dispute exists between Tenant and Landlord as to Landlord's right to draw down all or any portion of the L-C. No condition or term of this Lease shall be deemed to render the L-C conditional and thereby afford the Bank a justification for failing to honor a drawing upon such L-C in a timely manner. Tenant shall not request or instruct the Bank of any L-C to refrain from paying sight draft(s) drawn under such L-C.

21.6 Remedy for Improper Drafts. Tenant's sole remedy in connection with the improper presentment or payment of sight drafts drawn under any L-C shall be the right to obtain from Landlord a refund of the amount of any sight draft(s) that were improperly presented or the proceeds of which were misapplied, and reasonable actual out-of-pocket attorneys' fees, provided that at the time of such refund, Tenant increases the amount of such L-C to the amount (if any) then required under the applicable provisions of this Lease. Tenant acknowledges that the presentment of sight drafts drawn under any L-C, or the Bank's payment of sight drafts drawn under such L-C, could not under any

circumstances cause Tenant injury that could not be remedied by an award of money damages, and that the recovery of money damages would be an adequate remedy therefor. In the event Tenant shall be entitled to a refund as aforesaid and Landlord shall fail to make such payment within ten (10) business days after demand, Tenant shall have the right to deduct the amount thereof from the next installment(s) of Base Rent.

22. COMMUNICATIONS AND COMPUTER LINE Tenant may install, maintain, replace, remove or use any communications or computer wires and cables serving the Premises (collectively, the "**Lines**"), provided that Tenant shall obtain Landlord's prior written consent, use an experienced and qualified contractor approved in writing by Landlord, and comply with all of the other provisions of Articles 7 and 8 of this Lease. Tenant shall pay all costs in connection therewith. Landlord reserves the right, upon notice to Tenant prior to the expiration or earlier termination of this Lease, to require that Tenant, at Tenant's sole cost and expense, remove any Lines located in or serving the Premises prior to the expiration or earlier termination of this Lease.

23. SIGNS

23.1 **Exterior Signage**. Subject to Landlord's prior written approval, which shall not be unreasonably withheld, conditioned or delayed, and provided all signs are in keeping with the quality, design and style of the Building and Project, Landlord, at Landlord's sole cost and expense (with respect to the initial signage only), shall install (i) identification signage on the existing monument sign located at the exterior of the Project, (ii) internal directional and lobby identification signage, and (iii) suite identification signage at the entrance to the Premises (collectively, "**Tenant Signage**"); provided, however, in no event shall Tenant's Signage include an "Objectionable Name," as that term is defined in Section 23.3, of this Lease. All such signage shall be subject to Tenant's obtaining all required governmental approvals. All permitted signs shall be maintained by Tenant at its expense in a first-class and safe condition and appearance. Upon the expiration or earlier termination of this Lease, Tenant shall remove all of its signs at Tenant's sole cost and expense. The graphics, materials, color, design, lettering, lighting, size, illumination, specifications and exact location of Tenant's Signage (collectively, the "**Sign Specifications**") shall be subject to the prior written approval of Landlord, which approval shall not be unreasonably withheld, conditioned or delayed, and shall be consistent and compatible with the quality and nature of the Project. Tenant hereby acknowledges that, notwithstanding Landlord's approval of Tenant's Signage, Landlord has made no representation or warranty to Tenant with respect to the probability of obtaining all necessary governmental approvals and permits for Tenant's Signage. In the event Tenant does not receive the necessary governmental approvals and permits for Tenant's Signage, Tenant's and Landlord's rights and obligations under the remaining terms of this Lease shall be unaffected. If Landlord elects to install a multi-tenant identification sign at the entrance to the Project, Tenant shall be entitled to install its name on such sign (subject to availability on a pro-rata basis based on the relative square footages leased by the tenants of the Project), at Tenant's sole cost and expense. Tenant may install in the lobby a telephone and any other system reasonably acceptable to Landlord to help direct visitors to the Premises.

23.2 **Objectionable Name**. Tenant's Signage shall not include a name or logo which relates to an entity which is of a character or reputation, or is associated with a political faction or orientation, which is inconsistent with the quality of the Project, or which would otherwise reasonably offend a landlord of the Comparable Buildings (an "**Objectionable Name**"). The parties hereby agree that the following name, or any reasonable derivation thereof, shall be deemed not to constitute an Objectionable Name: "Annexon, Inc.."

23.3 **Prohibited Signage and Other Items**. Any signs, notices, logos, pictures, names or advertisements which are installed and that have not been separately approved by Landlord may be removed without notice by Landlord at the sole expense of Tenant. Any signs, window coverings, or blinds (even if the same are located behind the Landlord-approved window coverings for the Building), or other items visible from the exterior of the Premises or Building, shall be subject to the prior approval of Landlord, in its sole discretion.

24. COMPLIANCE WITH LAW Tenant shall not do anything or suffer anything to be done in or about the Premises or the Project which will in any way conflict with any law, statute, ordinance or other governmental rule, regulation or requirement now in force or which may hereafter be enacted or promulgated ("**Applicable Laws**"). At its sole cost and expense, Tenant shall promptly comply with all such governmental measures. Should any standard or regulation now or hereafter be imposed on Landlord or Tenant by a state, federal or local governmental body

charged with the establishment, regulation and enforcement of occupational, health or safety standards for employers, employees, landlords or tenants, then Tenant agrees, at its sole cost and expense, to comply promptly with such standards or regulations. Tenant shall be responsible, at its sole cost and expense, to make all alterations to the Building and Premises as are required to comply with the governmental rules, regulations, requirements or standards described in this Article 24. The judgment of any court of competent jurisdiction or the admission of Tenant in any judicial action, regardless of whether Landlord is a party thereto, that Tenant has violated any of said governmental measures, shall be conclusive of that fact as between Landlord and Tenant. For purposes of Section 1938 of the California Civil Code, Landlord hereby discloses to Tenant, and Tenant hereby acknowledges, that the Project, Building and Premises have not undergone inspection by a Certified Access Specialist (CASp). As required by Section 1938(e) of the California Civil Code, Landlord hereby states as follows: "A Certified Access Specialist (CASp) can inspect the subject premises and determine whether the subject premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, the commercial property owner or lessor may not prohibit the lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually agree on the arrangements for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the premises." In furtherance of the foregoing, Landlord and Tenant hereby agree as follows: (a) any CASp inspection requested by Tenant shall be conducted, at Tenant's sole cost and expense, by a CASp approved in advance by Landlord; and (b) pursuant to Article 24 below, but subject to Section 10.2 above, Tenant, at its cost, is responsible for making any repairs within the Premises to correct violations of construction-related accessibility standards; and, if anything done by or for Tenant in its use or occupancy of the Premises shall require repairs to the Building (outside the Premises) to correct violations of construction-related accessibility standards, then Tenant shall, at Landlord's option, either perform such repairs at Tenant's sole cost and expense or reimburse Landlord upon demand, as Additional Rent, for the cost to Landlord of performing such repairs. Tenant's obligations under this Article 24 are subject to the limitation in Section 10.2 above.

25. LATE CHARGES If any installment of Rent or any other sum due from Tenant shall not be received by Landlord or Landlord's designee within five (5) business days after Tenant's receipt of written notice from Landlord that said amount is delinquent then Tenant shall pay to Landlord a late charge equal to five percent (5%) of the overdue amount plus any reasonable attorneys' fees incurred by Landlord by reason of Tenant's failure to pay Rent and/or other charges when due hereunder. The late charge shall be deemed Additional Rent and the right to require it shall be in addition to all of Landlord's other rights and remedies hereunder or at law and shall not be construed as liquidated damages or as limiting Landlord's remedies in any manner. In addition to the late charge described above, any Rent or other amounts owing hereunder which are not paid within ten (10) days after Tenant's receipt of written notice that said amount is delinquent shall bear interest from the date when due until paid at a rate per annum equal to the lesser of (i) the annual "Bank Prime Loan" rate cited in the Federal Reserve Statistical Release Publication G.13(415), published on the first Tuesday of each calendar month (or such other comparable index as Landlord and Tenant shall reasonably agree upon if such rate ceases to be published) plus four (4) percentage points, and (ii) the highest rate permitted by applicable law.

26. LANDLORD'S RIGHT TO CURE DEFAULT; PAYMENTS BY TENANT

26.1 **Landlord's Cure**. All covenants and agreements to be kept or performed by Tenant under this Lease shall be performed by Tenant at Tenant's sole cost and expense and without any reduction of Rent, except to the extent, if any, otherwise expressly provided herein. If Tenant shall fail to perform any obligation under this Lease, and such failure shall continue in excess of the time allowed under Section 19.1.2, above, unless a specific time period is otherwise stated in this Lease, Landlord may, but shall not be obligated to, make any such payment or perform any such act on Tenant's part without waiving its rights based upon any default of Tenant and without releasing Tenant from any obligations hereunder.

26.2 **Tenant's Reimbursement**. Except as may be specifically provided to the contrary in this Lease, Tenant shall pay to Landlord, upon delivery by Landlord to Tenant of statements therefor: (i) sums equal to expenditures reasonably made and obligations incurred by Landlord in connection with the remedying by Landlord of Tenant's defaults pursuant to the provisions of Section 26.1; (ii) sums equal to all losses, costs, liabilities, damages

and expenses referred to in Article 10 of this Lease; and (iii) subject to Section 29.21, sums equal to all expenditures made and obligations incurred by Landlord in collecting or attempting to collect the Rent or in enforcing or attempting to enforce any rights of Landlord under this Lease or pursuant to law, including, without limitation, all reasonable legal fees and other amounts so expended. Tenant's obligations under this Section 26.2 shall survive the expiration or sooner termination of the Lease Term.

27. ENTRY BY LANDLORD Landlord reserves the right at all reasonable times and upon reasonable notice to Tenant (except in the case of an Emergency) to enter the Premises to (i) inspect them; (ii) show the Premises to prospective purchasers, or to current or prospective mortgagees, ground or underlying lessors or insurers or, during the last nine (9) months of the Lease Term, to prospective tenants; (iii) post notices of nonresponsibility (to the extent applicable pursuant to then applicable law); or (iv) repair the Premises or the Building, or for structural repairs to the Building or the Building's systems and equipment as provided under the Lease. Landlord may make any such entries without the abatement of Rent, except as otherwise provided in this Lease, and may take such reasonable steps as required to accomplish the stated purposes. In an Emergency, Landlord shall have the right to use any means that Landlord may deem proper to open the doors in and to the Premises. Any entry into the Premises by Landlord in the manner hereinbefore described shall not be deemed to be a forcible or unlawful entry into, or a detainer of, the Premises, or an actual or constructive eviction of Tenant from any portion of the Premises. Landlord shall use commercially reasonable efforts to minimize any interference with Tenant's use of or access to the Premises in connection with any such entry, and shall comply with Tenant's reasonable security measures. Landlord shall hold confidential any information regarding Tenant's business that it may learn as a result of such entry.

28. TENANT PARKING Tenant shall have the right, without the payment of any parking charge or fee (other than as a reimbursement of operating expenses to the extent allowed pursuant to the terms or Article 4 of this Lease, above), commencing on the Lease Commencement Date, to use the amount of parking set forth in Section 9 of the Summary, in the on-site parking lot and garage which serves the Building. Tenant shall abide by all reasonable rules and regulations which are prescribed from time to time for the orderly operation and use of the parking facility where the parking passes are located (including any sticker or other identification system established by Landlord and the prohibition of vehicle repair and maintenance activities in the parking facilities), and shall cooperate in seeing that Tenant's employees and visitors also comply with such rules and regulations. Tenant's use of the Project parking facility shall be at Tenant's sole risk and Tenant acknowledges and agrees that Landlord shall have no liability whatsoever for damage to the vehicles of Tenant, its employees and/or visitors, or for other personal injury or property damage or theft relating to or connected with the parking rights granted herein or any of Tenant's, its employees' and/or visitors' use of the parking facilities. Landlord shall not over subscribe parking. Landlord shall use commercially reasonable efforts to prevent the occupants of neighboring buildings from parking in the lot serving the Building and to prevent other tenants in the Building from using more than their share of the parking spaces.

29. MISCELLANEOUS PROVISIONS

29.1 **Terms; Captions**. The words "**Landlord**" and "**Tenant**" as used herein shall include the plural as well as the singular. The necessary grammatical changes required to make the provisions hereof apply either to corporations or partnerships or individuals, men or women, as the case may require, shall in all cases be assumed as though in each case fully expressed. The captions of Articles and Sections are for convenience only and shall not be deemed to limit, construe, affect or alter the meaning of such Articles and Sections.

29.2 **Binding Effect**. Subject to all other provisions of this Lease, each of the covenants, conditions and provisions of this Lease shall extend to and shall, as the case may require, bind or inure to the benefit not only of Landlord and of Tenant, but also of their respective heirs, personal representatives, successors or assigns, provided this clause shall not permit any assignment by Tenant contrary to the provisions of Article 14 of this Lease.

29.3 **No Air Rights**. No rights to any view or to light or air over any property, whether belonging to Landlord or any other person, are granted to Tenant by this Lease. If at any time any windows of the Premises are temporarily darkened or the light or view therefrom is obstructed by reason of any repairs, improvements, maintenance or cleaning in or about the Project, the same shall be without liability to Landlord and without any reduction or diminution of Tenant's obligations under this Lease.

29.4 **Modification of Lease**. Should any current or prospective mortgagee or ground lessor for the Building or Project require a modification of this Lease, which modification will not cause an increased cost or expense to Tenant or in any other way materially and adversely change the rights and obligations of Tenant hereunder or interfere with Tenant's use of the Premises, then and in such event, Tenant agrees that this Lease may be so modified and agrees to execute whatever documents are reasonably required therefor and to deliver the same to Landlord within ten (10) business days following a request therefor. At the request of Landlord or any mortgagee or ground lessor, Tenant agrees to execute a short form of Lease and deliver the same to Landlord within ten (10) business days following the request therefor.

29.5 **Transfer of Landlord's Interest**. Tenant acknowledges that Landlord has the right to transfer all or any portion of its interest in the Project or Building and in this Lease, and Tenant agrees that in the event of any such transfer, Landlord shall automatically be released from all liability under this Lease and Tenant agrees to look solely to such transferee for the performance of Landlord's obligations hereunder accruing after the date of transfer provided such transferee shall have fully assumed and agreed in writing to be liable for all obligations of this Lease to be performed by Landlord, including the return of any security deposit or L-C, and Tenant shall attorn to such transferee.

29.6 **Prohibition Against Recording**. Except as provided in Section 29.4 of this Lease, neither this Lease, nor any memorandum, affidavit or other writing with respect thereto, shall be recorded by Tenant or by anyone acting through, under or on behalf of Tenant.

29.7 **Landlord's Title**. Landlord's title is and always shall be paramount to the title of Tenant. Nothing herein contained shall empower Tenant to do any act which can, shall or may encumber the title of Landlord.

29.8 **Relationship of Parties**. Nothing contained in this Lease shall be deemed or construed by the parties hereto or by any third party to create the relationship of principal and agent, partnership, joint venturer or any association between Landlord and Tenant.

29.9 **Payment under Protest**. If Tenant in good faith disputes any amounts billed by Landlord, other than (i) Base Rent, (ii) Tenant's Share of Direct Expenses (as to which Tenant may exercise its rights under Section 4.6, above), Tenant may make payment of such amounts under protest, and reserve all of its rights with respect to such amounts (the "**Disputed Amounts**"). Landlord and Tenant shall meet and confer to discuss the Disputed Amounts and attempt, in good faith, to resolve the particular dispute. If, despite such good faith efforts, Landlord and Tenant are unable to reach agreement regarding the Disputed Amounts, either party may submit the matter to binding arbitration under the JAMS Streamlined Arbitration Rules & Procedures. The non-prevailing party, as determined by JAMS, will be responsible to pay all fees and costs incurred in connection with the JAMS procedure, as well as all other costs and expenses, including reasonable attorneys' fees, incurred by the prevailing party. This Section 29.9 shall not apply to claims relating to Landlord's exercise of any unlawful detainer rights pursuant to California law or rights or remedies used by Landlord to gain possession of the Premises or terminate Lessee's right of possession to the Premises.

29.10 **Time of Essence**. Time is of the essence with respect to the performance of every provision of this Lease in which time of performance is a factor.

29.11 **Partial Invalidity**. If any term, provision or condition contained in this Lease shall, to any extent, be invalid or unenforceable, the remainder of this Lease, or the application of such term, provision or condition to persons or circumstances other than those with respect to which it is invalid or unenforceable, shall not be affected thereby, and each and every other term, provision and condition of this Lease shall be valid and enforceable to the fullest extent possible permitted by law.

29.12 **No Warranty**. In executing and delivering this Lease, Tenant has not relied on any representations, including, but not limited to, any representation as to the amount of any item comprising Additional Rent or the amount of the Additional Rent in the aggregate or that Landlord is furnishing the same services to other tenants, at all, on the same level or on the same basis, or any warranty or any statement of Landlord which is not set forth herein or in one or more of the exhibits attached hereto.

29.13 **Landlord Exculpation**. The liability of Landlord or the Landlord Parties to Tenant for any default by Landlord under this Lease or arising in connection herewith or with Landlord's operation, management, leasing, repair, renovation, alteration or any other matter relating to the Project or the Premises shall be limited solely and exclusively to an amount which is equal to the lesser of (a) the interest of Landlord in the Project or (b) the equity interest Landlord would have in the Project if the Project were encumbered by third-party debt in an amount equal to eighty percent (80%) of the value of the Project (as such value is determined by Landlord), including any rental, condemnation, sales and insurance proceeds received by Landlord or the Landlord Parties in connection with the Project, Building or Premises. No Landlord Parties (other than Landlord) shall have any personal liability therefor, and Tenant hereby expressly waives and releases such liability on behalf of itself and all persons claiming by, through or under Tenant. The limitations of liability contained in this Section 29.13 shall inure to the benefit of Landlord's and the Landlord Parties' present and future partners, beneficiaries, officers, directors, trustees, shareholders, agents and employees, and their respective partners, heirs, successors and assigns. Under no circumstances shall any present or future partner of Landlord (if Landlord is a partnership), or trustee or beneficiary (if Landlord or any partner of Landlord is a trust), have any liability for the performance of Landlord's obligations under this Lease. Notwithstanding any contrary provision herein, neither Landlord nor the Landlord Parties shall be liable under any circumstances for injury or damage to, or interference with, Tenant's business, including but not limited to, loss of profits, loss of rents or other revenues, loss of business opportunity, loss of goodwill or loss of use, in each case, however occurring, or loss to inventory, scientific research, scientific experiments, laboratory animals, products, specimens, samples, and/or scientific, business, accounting and other records of every kind and description kept at the premises and any and all income derived or derivable therefrom.

29.14 **Entire Agreement**. It is understood and acknowledged that there are no oral agreements between the parties hereto affecting this Lease and this Lease constitutes the parties' entire agreement with respect to the leasing of the Premises and supersedes and cancels any and all previous negotiations, arrangements, brochures, agreements and understandings, if any, between the parties hereto or displayed by Landlord to Tenant with respect to the subject matter thereof, and none thereof shall be used to interpret or construe this Lease. None of the terms, covenants, conditions or provisions of this Lease can be modified, deleted or added to except in writing signed by the parties hereto.

29.15 **Right to Lease**. Landlord reserves the absolute right to effect such other tenancies in the Project as Landlord in the exercise of its sole business judgment shall determine to best promote the interests of the Building or Project. Tenant does not rely on the fact, nor does Landlord represent, that any specific tenant or type or number of tenants shall, during the Lease Term, occupy any space in the Building or Project.

29.16 **Force Majeure**. Any prevention, delay or stoppage due to strikes, lockouts, labor disputes, acts of God, acts of war, terrorist acts, inability to obtain services, labor, or materials or reasonable substitutes therefor, governmental actions, civil commotions, fire or other casualty, and other causes beyond the reasonable control of the party obligated to perform, except with respect to the obligations imposed with regard to Rent and other charges to be paid by Tenant pursuant to this Lease (collectively, a "**Force Majeure**"), notwithstanding anything to the contrary contained in this Lease, shall excuse the performance of such party for a period equal to any such prevention, delay or stoppage and, therefore, if this Lease specifies a time period for performance of an obligation of either party, that time period shall be extended by the period of any delay in such party's performance caused by a Force Majeure, provided, however, the foregoing delays shall not apply to Tenant's termination rights hereunder.

29.17 **Intentionally Omitted**.

29.18 **Notices**. All notices, demands, statements, designations, approvals or other communications (collectively, "**Notices**") given or required to be given by either party to the other hereunder or by law shall be in writing, shall be (A) sent by United States certified or registered mail, postage prepaid, return receipt requested ("**Mail**"), (B) delivered by a nationally recognized overnight courier, or (C) delivered personally. Any Notice shall be sent, transmitted, or delivered, as the case may be, to Tenant at the appropriate address set forth in Section 10 of

the Summary, or to such other place as Tenant may from time to time designate in a Notice to Landlord, or to Landlord at the addresses set forth below, or to such other places as Landlord may from time to time designate in a Notice to Tenant. Any Notice will be deemed given (i) three (3) business days after the date it is posted if sent by Mail, (ii) the date the overnight courier delivery is made, or (iii) the date personal delivery is made. As of the date of this Lease, any Notices to Landlord must be sent, transmitted, or delivered, as the case may be, to the following addresses:

Bayside Acquisition, LLC
c/o HCP, Inc.
1920 Main Street, Suite 1200
Irvine, CA 92614
Attention: Legal Department

and:

HCP Life Science Estates
950 Tower Lane, Suite 1650
Foster City, CA 94404
Attention: Jonathan M. Bergschneider

and

Allen Matkins Leck Gamble Mallory & Natsis LLP
1901 Avenue of the Stars
Suite 1800
Los Angeles, California 90067
Attention: Anton N. Natsis, Esq.

29.19 **Joint and Several**. If there is more than one tenant, the obligations imposed upon Tenant under this Lease shall be joint and several.

29.20 **Authority**. If Tenant is a corporation, trust or partnership, Tenant hereby represents and warrants that Tenant is a duly formed and existing entity qualified to do business in the State of California and that Tenant has full right and authority to execute and deliver this Lease and that each person signing on behalf of Tenant is authorized to do so.

29.21 **Attorneys' Fees**. In the event that either Landlord or Tenant should bring suit for the possession of the Premises, for the recovery of any sum due under this Lease, or because of the breach of any provision of this Lease or for any other relief against the other, then all costs and expenses, including reasonable attorneys' fees, incurred by the prevailing party therein shall be paid by the other party, which obligation on the part of the other party shall be deemed to have accrued on the date of the commencement of such action and shall be enforceable whether or not the action is prosecuted to judgment.

29.22 **Governing Law; WAIVER OF TRIAL BY JURY**. This Lease shall be construed and enforced in accordance with the laws of the State of California. IN ANY ACTION OR PROCEEDING ARISING HEREFROM, LANDLORD AND TENANT HEREBY CONSENT TO (I) THE JURISDICTION OF ANY COMPETENT COURT WITHIN THE STATE OF CALIFORNIA, (II) SERVICE OF PROCESS BY ANY MEANS AUTHORIZED BY CALIFORNIA LAW, AND (III) IN THE INTEREST OF SAVING TIME AND EXPENSE, TRIAL WITHOUT A JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM BROUGHT BY EITHER OF THE PARTIES HERETO AGAINST THE OTHER OR THEIR SUCCESSORS IN RESPECT OF ANY MATTER ARISING OUT OF OR IN CONNECTION WITH THIS LEASE, THE RELATIONSHIP OF LANDLORD AND TENANT, TENANT'S USE OR OCCUPANCY OF THE PREMISES, AND/OR ANY CLAIM FOR INJURY OR DAMAGE, OR ANY EMERGENCY OR STATUTORY REMEDY. IN THE EVENT LANDLORD COMMENCES ANY SUMMARY PROCEEDINGS OR ACTION FOR NONPAYMENT OF BASE

RENT OR ADDITIONAL RENT, TENANT SHALL NOT INTERPOSE ANY COUNTERCLAIM OF ANY NATURE OR DESCRIPTION (UNLESS SUCH COUNTERCLAIM SHALL BE MANDATORY) IN ANY SUCH PROCEEDING OR ACTION, BUT SHALL BE RELEGATED TO AN INDEPENDENT ACTION AT LAW.

29.23 **Submission of Lease**. Submission of this instrument for examination or signature by Tenant does not constitute a reservation of, option for or option to lease, and it is not effective as a lease or otherwise until execution and delivery by both Landlord and Tenant.

29.24 **Brokers**. Landlord and Tenant hereby warrant to each other that they have had no dealings with any real estate broker or agent in connection with the negotiation of this Lease, excepting only the real estate brokers or agents specified in Section 12 of the Summary (the "**Brokers**"), and that they know of no other real estate broker or agent who is entitled to a commission in connection with this Lease. Each party agrees to indemnify and defend the other party against and hold the other party harmless from any and all claims, demands, losses, liabilities, lawsuits, judgments, costs and expenses (including without limitation reasonable attorneys' fees) with respect to any leasing commission or equivalent compensation alleged to be owing on account of any dealings with any real estate broker or agent, other than the Brokers, occurring by, through, or under the indemnifying party. The terms of this Section 29.24 shall survive the expiration or earlier termination of the Lease Term.

29.25 **Independent Covenants**. This Lease shall be construed as though the covenants herein between Landlord and Tenant are independent and not dependent and Tenant hereby expressly waives the benefit of any statute to the contrary and agrees that if Landlord fails to perform its obligations set forth herein, Tenant shall not be entitled to make any repairs or perform any acts hereunder at Landlord's expense or to any setoff of the Rent or other amounts owing hereunder against Landlord.

29.26 **Project or Building Name, Address and Signage**. Landlord shall have the right at any time to change the name and/or address of the Project or Building (and Landlord shall reimburse Tenant its actual, reasonable costs incurred as a result of such change, if any) and, subject to Section 23.1, to install, affix and maintain any and all signs on the exterior and on the interior of the Project or Building as Landlord may, in Landlord's sole discretion, desire. Tenant shall not use the name of the Project or Building or use pictures or illustrations of the Project or Building in advertising or other publicity or for any purpose other than as the address of the business to be conducted by Tenant in the Premises, without the prior written consent of Landlord.

29.27 **Counterparts**. This Lease may be executed in counterparts with the same effect as if both parties hereto had executed the same document. Both counterparts shall be construed together and shall constitute a single lease.

29.28 **Good Faith**. Except (i) for matters for which there is a standard of consent or discretion specifically set forth in this Lease; (ii) matters which could have an adverse effect on the Building Structure or the Building Systems, or which could affect the exterior appearance of the Building, or (iii) matters covered by Article 4 (Additional Rent), or Article 19 (Defaults; Remedies) of this Lease (collectively, the the "**Excepted Matters**"), any time the consent of Landlord or Tenant is required, such consent shall not be unreasonably withheld or delayed, and, except with regard to the Excepted Matters, whenever this Lease grants Landlord or Tenant the right to take action, exercise discretion, establish rules and regulations or make an allocation or other determination, Landlord and Tenant shall act reasonably and in good faith.

29.29 **Development of the Project**.

29.29.1 **Subdivision**. Landlord reserves the right to subdivide all or a portion of the buildings and Common Areas, so long as the same does not interfere with Tenant's use of or access to the Premises or Tenant's parking rights. Tenant agrees to execute and deliver, upon demand by Landlord and in the form requested by Landlord, any additional documents needed to conform this Lease to the circumstances resulting from a subdivision and any all maps in connection therewith, so long as the same does not increase Tenant's obligations or decrease Tenant's rights under this Lease. Notwithstanding anything to the contrary set forth in this Lease, the separate ownership of any buildings and/or Common Areas by an entity other than Landlord shall not affect the calculation of Direct Expenses or Tenant's payment of Tenant's Share of Direct Expenses.

29.29.2 **Construction of Property and Other Improvements**. Tenant acknowledges that portions of the Project may be under construction following Tenant's occupancy of the Premises, and that such construction may result in levels of noise, dust, obstruction of access, etc. which are in excess of that present in a fully constructed project. Tenant hereby waives any and all rent offsets or claims of constructive eviction which may arise in connection with such construction, so long as the same does not interfere with Tenant's use of or access to the Premises or Tenant's parking rights.

29.30 **No Violation**. Tenant hereby warrants and represents that neither its execution of nor performance under this Lease shall cause Tenant to be in violation of any agreement, instrument, contract, law, rule or regulation by which Tenant is bound, and Tenant shall protect, defend, indemnify and hold Landlord harmless against any claims, demands, losses, damages, liabilities, costs and expenses, including, without limitation, reasonable attorneys' fees and costs, arising from Tenant's breach of this warranty and representation.

29.31 **Transportation Management**. Tenant shall fully comply with all present or future programs required by applicable laws intended to manage parking, transportation or traffic in and around the Project and/or the Building, and in connection therewith, Tenant shall take responsible action for the transportation planning and management of all employees located at the Premises by working directly with Landlord, any governmental transportation management organization or any other transportation-related committees or entities. Such programs may include, without limitation: (i) restrictions on the number of peak-hour vehicle trips generated by Tenant; (ii) increased vehicle occupancy; (iii) implementation of an in-house ridesharing program and an employee transportation coordinator; (iv) working with employees and any Project, Building or area-wide ridesharing program manager; (v) instituting employer-sponsored incentives (financial or in-kind) to encourage employees to rideshare; and (vi) utilizing flexible work shifts for employees.

IN WITNESS WHEREOF, Landlord and Tenant have caused this Lease to be executed the day and date first above written.

LANDLORD:

BAYSIDE ACQUISITION, LLC,
a Delaware limited liability company

By: _____

Name: _____

Its: _____

By: _____

Name: _____

Its: _____

TENANT:

ANNEXON, INC.,
a Delaware corporation

By: _____

_____
Print Name

Its: _____

By: _____

_____
Print Name

Its: _____

EXHIBIT A

BRITANNIA LIFE SCIENCE CENTER

OUTLINE OF PREMISES

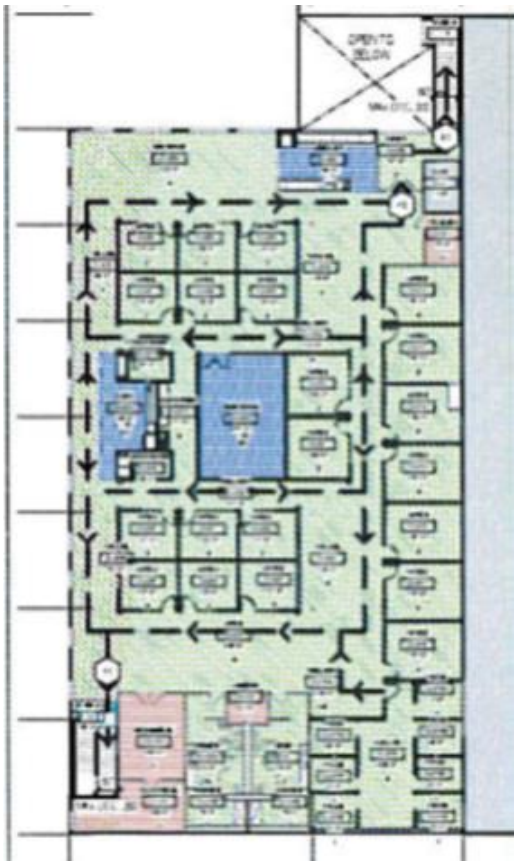

EXHIBIT A-1

BRITANNIA LIFE SCIENCE CENTER

PROJECT SITE PLAN

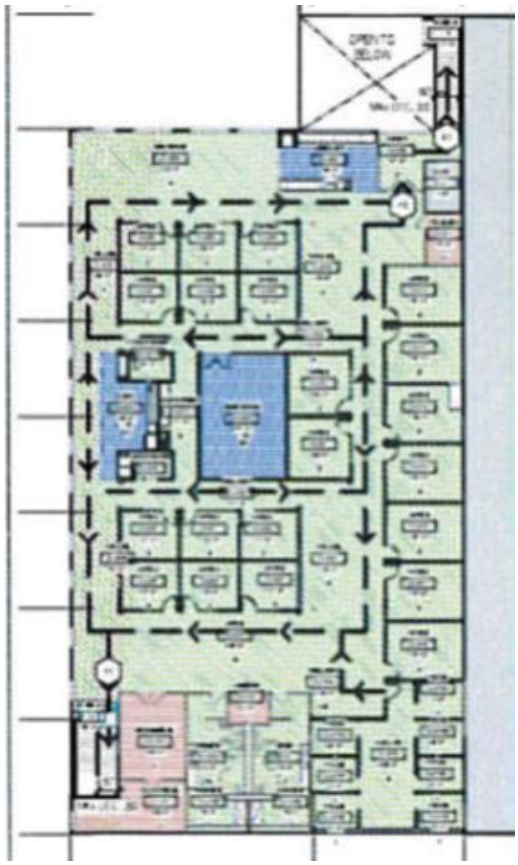

EXHIBIT B

BRITANNIA LIFE SCIENCE CENTER

TENANT WORK LETTER

1. **Defined Terms**. As used in this Tenant Work Letter, the following capitalized terms have the following meanings:

(a) **Approved TI Plans**: Plans and specifications prepared by the applicable Architect for the Tenant Improvements and approved by Landlord and Tenant in accordance with Paragraph 2 of this Tenant Work Letter, subject to further modification from time to time to the extent provided in and in accordance with such Paragraph 2.

(b) **Architect**: The architect reasonably and mutually selected by Landlord and Tenant, with respect to any Tenant Improvements which Landlord is to cause to be constructed pursuant to this Tenant Work Letter.

(c) **Tenant Change Request**: See definition in Paragraph 2(c)(ii) hereof.

(d) **Final TI Working Drawings**: See definition in Paragraph 2(a) hereof.

(e) **General Contractor**: The general contractor reasonably selected by Landlord with respect to Landlord's TI Work as provided in Section 2(c) below. Tenant shall have no right to direct or control such General Contractor.

(f) **Landlord's TI Work**: Any Tenant Improvements which Landlord is to construct or install pursuant to this Tenant Work Letter or by mutual agreement of Landlord and Tenant from time to time.

(g) **Project Manager**. Project Management Advisors, Inc., or any other project manager designated by Landlord in its reasonable discretion from time to time to act in a supervisory, oversight, project management or other similar capacity on behalf of Landlord in connection with the design and/or construction of the Tenant Improvements.

(h) **Punch List Work**: Minor corrections of construction or decoration details, and minor mechanical adjustments, that are required in order to cause any applicable portion of the Tenant Improvements or Landlord's Work as constructed to conform to the Approved TI Plans or this Tenant Work Letter in all material respects and that do not materially interfere with Tenant's use or occupancy of the Building and the Premises.

(i) **Substantial Completion Certificate**: See definition in Paragraph 3(a) hereof.

(j) **Tenant Delay**: Any of the following types of delay in the completion of construction of Landlord's TI Work (but in each instance, only to the extent that any of the following has actually and proximately caused substantial completion of Landlord's TI Work to be delayed):

(i) Any delay resulting from Tenant's failure to furnish, in a timely manner, information reasonably requested by Landlord or by Landlord's Project Manager in connection with the design or construction of Landlord's TI Work, or from Tenant's failure to approve in a timely manner any matters requiring approval by Tenant;

(ii) Any delay resulting from Tenant Change Requests initiated by Tenant, including any delay resulting from the need to revise any drawings or obtain further governmental approvals as a result of any such Tenant Change Request; or

(iii) Any delay caused by Tenant (or Tenant's contractors, agents or employees) materially interfering with the performance of Landlord's TI Work, provided that Landlord shall have given Tenant prompt notice of such material interference and, before the first time a Tenant Delay is deemed to have occurred as a result of such delay, such interference has continued for more than twenty-four (24) hours after Tenant's receipt of such notice.

(k) **Tenant Improvements**: The improvements to or within the Building shown on the Approved TI Plans from time to time and to be constructed by Landlord pursuant to the Lease and this Tenant Work Letter. The term "Tenant Improvements" does not include the improvements existing in the Building and Premises at the date of execution of the Lease.

(l) **Unavoidable Delays**: Delays due to acts of God, acts of public agencies, labor disputes, strikes, fires, freight embargoes, inability (despite the exercise of due diligence) to obtain supplies, materials, fuels or permits, or other causes or contingencies (excluding financial inability) beyond the reasonable control of Landlord or Tenant, as applicable. Landlord shall use commercially reasonable efforts to provide Tenant with prompt notice of any Unavoidable Delays.

(m) Capitalized terms not otherwise defined in this Tenant Work Letter shall have the definitions set forth in the Lease.

2. **Plans and Construction**. Landlord and Tenant shall comply with the procedures set forth in this Paragraph 2 in preparing, delivering and approving matters relating to the Tenant Improvements.

(a) Approved Plans and Working Drawings for Tenant Improvements. Tenant shall promptly and diligently work with the Architect to cause to be prepared and delivered to Landlord for approval (which approval shall not be unreasonably withheld, conditioned or delayed by Landlord) proposed schematic plans and outline specifications for the Tenant Improvements. Following mutual approval of such proposed schematic plans and outline specifications by Landlord and by Tenant (as so approved, the "**Approved Schematic Plans**"), Tenant shall then work with the Architect to cause to be prepared, promptly and diligently (assuming timely delivery by Landlord of any information and decisions required to be furnished or made by Landlord in order to permit preparation of final working drawings, all of which information and decisions Landlord will deliver promptly and with reasonable diligence), and delivered to Landlord for approval (which approval shall not be unreasonably withheld, conditioned or delayed by Landlord) final detailed working drawings and specifications for the Tenant Improvements, including (without limitation) any applicable life safety, mechanical, electrical and plumbing working drawings and final architectural drawings (collectively, "**Final TI Working Drawings**"), which Final TI Working Drawings shall substantially conform to the Approved Schematic Plans. Upon receipt from Tenant of proposed schematic plans and outline specifications, proposed Final TI Working Drawings, any other plans and specifications, or any revisions or resubmittals of any of the foregoing, as applicable, Landlord shall promptly and diligently (and in all events within 10 business days after receipt in the case of an initial submittal of schematic plans and outline specifications or proposed Final TI Working Drawings, and within 7 business days after receipt in the case of any other plans and specifications or any revisions or resubmittals of any of the foregoing) either approve such proposed schematic plans and outline specifications or proposed Final TI Working Drawings, as applicable, or set forth in writing with particularity any changes necessary to bring the aspects of such proposed schematic plans and outline specifications or proposed Final TI Working Drawings into a form which will be reasonably acceptable to Landlord. Upon approval of the Final TI Working Drawings by Landlord and Tenant, the Final TI Working Drawings shall constitute the **"Approved TI Plans,"** superseding (to the extent of any inconsistencies) any inconsistent features of the previously existing Approved Schematic Plans. Tenant shall respond to any request for information or approval of plans or drawings from Landlord or Architect within five (5) business days. If reasonably requested by Tenant, the Approved TI Plans may include re-used lab casework which is in reasonably good condition.

(b) Cost of Improvements. "**Cost of Improvement**" shall mean, with respect to any item or component for which a cost must be determined in order to allocate such cost, or an increase in such cost, to Tenant pursuant to this Tenant Work Letter, the sum of the following (unless otherwise agreed in writing by Landlord and Tenant with respect to any specific item or component or any category of items or components): (i) all sums paid to contractors or subcontractors for labor and materials furnished in connection with construction of such item or

component; (ii) all costs, expenses, payments, fees and charges (other than penalties) paid to or at the direction of any city, county or other governmental or quasi-governmental authority or agency which are required to be paid in order to obtain all necessary governmental permits, licenses, inspections and approvals relating to construction of such item or component; (iii) engineering and architectural fees for services rendered in connection with the design and construction of such item or component (including, but not limited to, the Architect for such item or component and an electrical engineer, mechanical engineer, structural engineer and civil engineer, if applicable); (iv) sales and use taxes; (v) testing and inspection costs; (vi) the cost of power, water and other utility facilities and the cost of collection and removal of debris required in connection with construction of such item or component; (vii) costs for builder's risk insurance; and (viii) all other "hard" and "soft" costs incurred in the construction of such item or component in accordance with the Approved TI Plans (if applicable) and this Tenant Work Letter; provided that the Cost of Improvements shall not include any internal or third-party costs incurred by Landlord except as provided in Section 2(e).

(c) **Construction of Landlord's TI Work**. Following completion of the Approved TI Plans, Landlord shall apply for and use reasonable efforts to obtain the necessary permits and approvals to allow construction of all Tenant Improvements. Upon receipt of such permits and approvals, Landlord shall, at Tenant's expense (subject to Landlord's payment of the Tenant Improvement Allowance and, to the extent requested by Tenant, the Additional TI Allowance), construct and complete the Tenant Improvements substantially in accordance with the Approved TI Plans, subject to Unavoidable Delays and Tenant Delays (if any). Such construction of the Tenant Improvements and Landlord's Work shall be performed in a neat, good and workmanlike manner, free of defects, using new materials and equipment (except for re-used lab casework as shown on the Approved TI Plans) of good quality, and shall materially conform to all applicable laws, rules, regulations, codes, ordinances, requirements, covenants, conditions and restrictions applicable thereto in force at the time such work is completed. Landlord shall cause Hathaway Dinwiddie (so long as obtaining such bid does not delay the commencement of Landlord's TI Work), Landmark Builders and any other potential general contractors requested by Tenant and reasonably approved by Landlord to bid on general conditions and fee for construction of the Tenant Improvements and provide an estimate for the direct cost of the Tenant Improvements. All bids will be opened together with Landlord selecting the general contractor to construct the Tenant Improvements, subject to the reasonable approval of Tenant. Tenant shall also have the right to approve all subcontractors engaged by the General Contractor, which subcontractors shall be competitively bid and which approval shall not be unreasonably withheld, conditioned or delayed. Landlord shall enter into a stipulated sum or guaranteed maximum price construction contract with the General Contractor in the amount of the construction costs approved by Landlord and Tenant.

(d) **Changes**.

(i) If Landlord determines at any time that changes in the Final TI Working Drawings or in any other aspect of the Approved TI Plans relating to any item of Landlord's TI Work are required as a result of applicable law or governmental requirements, or are required at the insistence of any other third party whose approval may be required with respect to the Tenant Improvements, or are required as a result of unanticipated conditions encountered in the course of construction, then Landlord shall promptly (A) advise Tenant of such circumstances and (B) at Tenant's sole cost and expense, subject to Landlord's payment of the Tenant Improvement Allowance and, to the extent requested by Tenant, the Additional TI Allowance, cause revised Final TI Working Drawings to be prepared by the Architect and submitted to Tenant, for Tenant's approval, which shall not be unreasonably withheld. Failure of Tenant to deliver to Landlord written notice of disapproval and specification of such required changes on or before any deadline reasonably specified by Landlord (which shall not be less than three (3) business days after delivery thereof to Tenant) shall constitute and be deemed to be a Tenant Delay to the extent Landlord is delayed in completing Landlord's TI Work..

(ii) If Tenant at any time desires any changes, alterations or additions to the Final TI Working Drawings, Tenant shall submit a detailed written request to Landlord specifying such changes, alterations or additions (a "**Tenant Change Request**"). Upon receipt of any such request, Landlord shall promptly notify Tenant of (A) whether the matters proposed in the Tenant Change Request are approved by Landlord (which approval shall not be unreasonably withheld, conditioned or delayed by Landlord), (B) Landlord's estimate of the number of days of delay, if any, which shall be caused in the construction of the Tenant Improvements by such Tenant Change Request if implemented (including, without limitation, delays due to the need to obtain any revised plans or drawings and any governmental approvals), and (C) Landlord's estimate of the increase, if any, which shall occur in the cost of design,

permitting, project management and construction of the Tenant Improvements affected by such Tenant Change Request if such Tenant Change Request is implemented (including, but not limited to, any costs of compliance with laws or governmental regulations that become applicable because of the implementation of the Tenant Change Request). If Landlord approves the Tenant Change Request and Tenant notifies Landlord in writing, within three (3) business days after receipt of such notice from Landlord, of Tenant's approval of the Tenant Change Request (including the estimated delays and cost increases, if any, described in Landlord's notice), then Landlord shall cause such Tenant Change Request to be implemented and Tenant shall be responsible for all actual costs or cost increases resulting from or attributable to the implementation of the Tenant Change Request, and any delays resulting therefrom shall be deemed to be a Tenant Delay (subject to Landlord's payment of the Tenant Improvement Allowance and, to the extent requested by Tenant, the Additional TI Allowance). If Tenant fails to notify Landlord in writing of Tenant's approval of such Tenant Change Request within said three (3) business day period, then such Tenant Change Request shall be deemed to be withdrawn and shall be of no further effect.

(e) **Project Management**. Unless and until revoked by Landlord by written notice delivered to Tenant, Landlord hereby (i) delegates to Project Manager the authority to exercise all approval rights, supervisory rights and other rights or powers of Landlord under this Tenant Work Letter with respect to the design and construction of the Tenant Improvements, and (ii) requests that Tenant work with Project Manager with respect to any logistical or other coordination matters arising in the course of construction of the Tenant Improvements, including monitoring Tenant's compliance with its obligations under this Tenant Work Letter and under the Lease with respect to the design and construction of the Tenant Improvements. Tenant acknowledges the foregoing delegation and request, and agrees to cooperate reasonably with Project Manager as Landlord's representative pursuant to such delegation and request. Fees and charges of Project Manager for such services shall be at Tenant's sole expense, subject to Landlord's payment of the Tenant Improvement Allowance and, to the extent requested by Tenant, the Additional TI Allowance. Such fees shall not exceed an amount equal the product of (A) 2.9% and (B) the amount of the Tenant Improvement Allowance which Tenant elects to utilize; provided that in the event Tenant elects to utilize any Tenant Funds or all or any portion of the Additional TI Allowance pursuant to the terms of Sections 4(b) and 4(c) below, such fees to the Project Manager shall increase by an amount equal to the product of (A) 2.0% and (B) the amount of the Additional TI Allowance and/or Tenant Funds which Tenant elects to utilize.

3. **Completion**.

(a) When Landlord receives written certification from Architect that construction of the Tenant Improvements and Landlord's Work has been completed in accordance with the Approved TI Plans and Section 2(e) above (except for Punch List Work), Landlord shall prepare and deliver to Tenant a certificate (or separate certificates for the Tenant Improvements and Landlords Work) signed by both Landlord and Architect (the "**Substantial Completion Certificate**") (i) certifying that the construction of the Tenant Improvements an Landlord's Work has been substantially completed in a good and workmanlike manner in accordance with the Approved TI Plans and Section 2(e) above in all material respects, subject only to completion of Punch List Work, and specifying the date of that completion, and (ii) certifying that the Tenant Improvements and Landlord's Work comply in all material respects with all laws, rules, regulations, codes, ordinances, requirements, covenants, conditions and restrictions applicable thereto at the time of such delivery. Upon receipt by Tenant of the Substantial Completion Certificate and tender of possession of the Premises by Landlord to Tenant, and receipt of any certificate of occupancy or its legal equivalent, or other required sign-offs from any applicable governmental authority, allowing the legal occupancy of the Premises, the Tenant Improvements will be deemed delivered to Tenant and "Ready for Occupancy" for all purposes of the Lease (subject to Landlord's continuing obligations with respect to any Punch List Work, and to any other express obligations of Landlord under the Lease or this Tenant Work Letter with respect to such Tenant Improvements).

(b) Immediately prior to delivery of the Substantial Completion Certificate for the Tenant Improvements in the Building, Project Manager or other representatives of Landlord shall conduct one or more "walkthroughs" of the Building with Tenant and Tenant's representatives, to identify any items of Punch List Work that may require correction and to prepare a joint punch list reflecting any such items, following which Landlord shall diligently complete the Punch List Work reflected in such joint punch list. The Punch List Work shall be attached to the Substantial Completion Certificate, and shall not include damage caused by Tenant or any of Tenant's agents in connection with any work performed by Tenant in the Premises, or required as a result of Tenant's move-in to the Premises. At any time within thirty (30) days after delivery of such Substantial Completion Certificate, Tenant shall be entitled to submit one or more lists to Landlord supplementing such joint punch list by specifying any additional

items of Punch List Work to be performed on the applicable Tenant Improvements and Landlord's Work, and upon receipt of such list(s), Landlord shall diligently complete such additional Punch List Work. Promptly after Landlord provides Tenant with the Substantial Completion Certificate and completes all applicable Punch List Work for the Building, Landlord shall cause the recordation of a Notice of Completion (as defined in the California Civil Code) with respect to the Tenant Improvements.

(c) All construction, product and equipment warranties and guaranties obtained by Landlord with respect to the Tenant Improvements and Landlord's Work shall, to the extent reasonably obtainable, include a provision that such warranties and guaranties shall also run to the benefit of Tenant, and Landlord shall cooperate with Tenant in a commercially reasonable manner to assist in enforcing all such warranties and guaranties for the benefit of Tenant.

(d) Notwithstanding any other provisions of this Tenant Work Letter or of the Lease, if Landlord is delayed in substantially completing any of the Tenant Improvements as a result of any Tenant Delay, and if the Lease Commencement Date is being determined under clause (ii) of Section 3.2 of the Lease Summary, then notwithstanding any other provision of the Lease to the contrary, then the Premises shall be deemed to have been Ready for Occupancy on the date the Premises would have been Ready for Occupancy absent such Tenant Delay.

4. **Payment of Costs.**

(a) **Tenant Improvement Allowance**. Subject to any restrictions, conditions or limitations expressly set forth in this Tenant Work Letter or in the Lease or as otherwise expressly provided by mutual written agreement of Landlord and Tenant, the cost of construction of the Tenant Improvements shall be paid or reimbursed by Landlord up to a maximum amount equal to $2,364,672.00 (the "**Tenant Improvement Allowance**"), which amount is being made available by Landlord to be applied towards the Cost of Improvements for the construction of the Tenant Improvements in the Premises. Tenant shall be responsible, at its sole cost and expense, for payment of the entire Cost of Improvements of the Tenant Improvements in excess of the Tenant Improvement Allowance, including (but not limited to) any costs or cost increases incurred as a result of delays (unless caused by Landlord), governmental requirements or unanticipated conditions (unless caused by Landlord), and for payment of any and all costs and expenses relating to any alterations, additions, improvements, furniture, furnishings, equipment, fixtures and personal property items which are not eligible for application of Tenant Improvement Allowance funds under the restrictions expressly set forth below in this paragraph, but Tenant shall be entitled to use or apply the entire Tenant Improvement Allowance toward the Cost of Improvements of the Tenant Improvements (subject to any applicable restrictions, conditions, limitations, reductions or charges set forth in the Lease or in this Tenant Work Letter) prior to being required to expend any of Tenant's own funds for the Tenant Improvements. The funding of the Tenant Improvement Allowance shall be made on a monthly basis or at other convenient intervals mutually approved by Landlord and Tenant and in all other respects shall be based on such commercially reasonable disbursement conditions and procedures as Landlord, Project Manager and Landlord's lender (if any) may reasonably prescribe. Notwithstanding the foregoing provisions, under no circumstances shall the Tenant Improvement Allowance or any portion thereof be used or useable by Tenant for any moving or relocation expenses of Tenant, or for any Cost of Improvement (or any other cost or expense) associated with any moveable furniture or trade fixtures, personal property or any other item or element which, under the applicable provisions of the Lease, will not become Landlord's property and remain with the Building upon expiration or termination of the Lease. Notwithstanding anything to the contrary herein, the Tenant Improvements shall not include (and Landlord shall be solely responsible for and the Tenant Improvement Allowance shall not be used for) the following: (a) costs incurred due to the presence of any Hazardous Materials, if any, but with respect to removal and remediation of any such Hazardous Materials, only to the extent such removal or remediation is required by Applicable Laws enforced as of the date of this Lease for improvements in the Premises generally (as opposed to the specific Tenant Improvements) and to the extent the same required in order to allow Tenant to obtain a certificate of occupancy or its legal equivalent, for the Premises for the Permitted Use assuming a normal and customary occupancy density; (b) costs to bring the Project into compliance with Applicable Laws to the extent required in order to allow Tenant to obtain a certificate of occupancy or its legal equivalent, for the Premises for the Permitted Use assuming a normal and customary office occupancy density; (c) construction costs in excess of the contract amount stated in the contract with the General Contractor, as approved by Tenant (not to be unreasonably withheld), except for increases set forth in change orders approved by Tenant; (d) wages, labor and overhead for overtime and premium time unless approved by Tenant (which approval shall not be unreasonably withheld, conditioned or delayed); (e) attorneys' fees incurred in connection with negotiation of

construction contracts, and attorneys' fees, experts' fees and other costs in connection with disputes with third parties; (f) interest and other costs of financing construction costs; (g) costs incurred as a consequence construction defects or default by a contractor; (h) costs as a consequence of casualties; (i) penalties and late charges attributable to Landlord's failure to pay construction costs, and (j) costs due to compliance with any soil management plan for the Project or its appendices

(b) **Additional TI Allowance**. In addition to the Tenant Improvement Allowance, Tenant shall have the right, by written notice to Landlord given on or before the Lease Commencement Date, to use up to $15.00 per RSF of the Premises (i.e., up to $184,740.00) (the "**Additional TI Allowance**") towards the payment of the costs of the Tenant Improvement Allowance Items. In the event Tenant exercises its right to use all or any portion of the Additional TI Allowance, Tenant shall be required to pay Landlord, commencing on the date the Tenant Improvements are completed (the "**Additional Payment Commencement Date**"), the "Additional TI Allowance Payment," as that term is defined below, in consideration of Landlord provision of the Additional TI Allowance. The "**Additional TI Allowance Payment**" shall be determined as the missing component of an annuity, which annuity shall have (i) the amount of the Additional TI Allowance utilized by Tenant as the present value amount, (ii) a number equal to the number of full calendar months then remaining in the Lease Term as the number of payments, (iii) a monthly interest factor equal to eighty-three one-hundredths percent (0.83%), which is equal to ten percent (10%) divided by twelve (12) months per year, and (iv) the Additional TI Allowance Payment as the missing component of the annuity. Following the calculation of the Additional TI Allowance Payment, Landlord and Tenant will enter into a lease amendment in the form of **Exhibit H** attached hereto, to confirm the amount thereof.

(c) **Tenant Funds**. For additional funds required to complete the cost of the work, that are in excess of or elected by the Tenant to be used in place of the Tenant Improvement Allowance, the Additional TI Allowance, these shall be considered "**Tenant Funds**." The total cost to construct the Tenant Improvements as managed by Landlord and the Project Manager under this Work Letter shall be the "**Project Budget**." The Landlord understands that at the time of the agreed upon Guaranteed Maximum Price (GMP), the Tenant Funds amount is an estimate and exact costs will not be known until project closeout. The Tenant is required, at the time of agreement of the GMP, to provide a purchase order to the Landlord for the full estimated amount of the Tenant Funds, provided that Tenant shall not be required to make payment, if any, until the close out of the project and a true up of costs are provided to Tenant. In the event the Tenant Funds at project closeout are less than the amount agreed upon within the Project Budget, the Landlord will only bill the Tenant for the Tenant Funds that have been utilized. In the event the Tenant Funds exceed the amount agreed upon within the Project Budget, through added scope changes, the Tenant shall provide additional purchases orders to the Landlord, which will be included in the Tenant Change Request process that the Landlord's representative administers.

5. **No Agency**. Nothing contained in this Tenant Work Letter shall make or constitute Tenant as the agent of Landlord.

6. **Tenant Access**. Provided that Tenant and its agents do not interfere with Contractor's work in the Building and the Premises (including by the use of non-union vendors without prior coordination with Landlord), Contractor and Landlord shall allow Tenant access to the Premises at least thirty (30) days prior to the Substantial Completion of the Landlord's TI Work without payment of Rent for the purpose of Tenant installing equipment or fixtures (including Tenant's data and telephone equipment) in the Premises and preparing the Premises for occupancy and access any time after Lease execution for site visits needed for planning (as reasonably scheduled with Landlord). Prior to Tenant's entry into the Premises as permitted by the terms of this Section 6, Tenant shall submit a schedule to Landlord and Contractor, for their approval, which schedule shall detail the timing and purpose of Tenant's entry. Tenant shall hold Landlord harmless from and indemnify, protect and defend Landlord against any loss or damage to the Building or Premises and against injury to any persons caused by Tenant's actions pursuant to this Section 6.

7. **Miscellaneous**. All references in this Tenant Work Letter to a number of days shall be construed to refer to calendar days, unless otherwise specified herein. In all instances where Landlord's or Tenant's approval is required, if no written notice of disapproval is given within the applicable time period, at the end of that period Landlord or Tenant shall be deemed to have given approval (unless the provision requiring Landlord's or Tenant's approval expressly states that non-response is deemed to be a disapproval or withdrawal of the pending action or request, in which event such express statement shall be controlling over the general statement set forth in this sentence)

and the next succeeding time period shall commence. If any item requiring approval is disapproved by Landlord or Tenant (as applicable) in a timely manner, the procedure for preparation of that item and approval shall be repeated. Landlord hereby acknowledges that Tenant shall not be required to restore the initial Tenant Improvements constructed in the Premises pursuant to the terms of this Tenant Work Letter upon the termination of the Lease.

8. **Time Deadlines**. Tenant shall use commercially reasonable, good faith, efforts and all due diligence to cooperate with the Architect, General Contractor and Landlord to complete all phases of the construction drawings set forth in this Tenant Work Letter and the permitting process and to receive the permits as soon as possible after the execution of this Lease. The applicable dates for approval of items, plans and drawings as described in this Tenant Work Letter are set forth and further elaborated upon in Schedule 1 to this Exhibit B attached hereto (the "**Time Deadlines**"), attached hereto. Tenant agrees to utilize commercially reasonable efforts to comply with the Time Deadlines.

SCHEDULE 1 TO EXHIBIT B

TIME DEADLINES

11/28/2016	TI Design Commencement
12/9/2016	Tenant Submission of Draft Equipment List and HMIS (Hazordous Materials Inventory Statement)
12/16/2016	Tenant Approval of 100% Schematic Design
1/2/2017	Tenant Submission of Final Equipment List and HMIS
1/5/2017	Tenant Approval of 100% Design Development
1/20/2017	Tenant Approval of 100% DD Estimate, Scope, and Project Budget
1/20/2017	Release of long lead items (i.e. casework) – Tenant and Landlord Approval
1/27/2017	Architect Submit for TI Permit
2/1/2017	Tenant Approval of 100% Construction Documents
3/31/2017	Tenant Approval of Permit Drawings and Project Budget
6/9/2017	Estimated Substantial Completion/Temporary Certificate of Occupancy
6/9/2017	Estimated Rent Commencement
7/9/2017	Estimated Punchlist Completion and Project Closeout

EXHIBIT C

BRITANNIA LIFE SCIENCE CENTER

NOTICE OF LEASE TERM DATES

To: _____
_____
_____
_____

Re: Lease dated _____, 20__ between _____, a _____ ("**Landlord**"), and _____, a _____ ("**Tenant**") concerning Suite _____ on floor(s) _____ of the building located at _____, California.

Gentlemen:

In accordance with the Lease (the "**Lease**"), we wish to advise you and/or confirm as follows:

1. The Lease Term shall commence on or has commenced on _____ for a term of _____ ending on _____.

2. Rent commenced to accrue on _____, in the amount of _____.

3. If the Lease Commencement Date is other than the first day of the month, the first billing will contain a pro rata adjustment. Each billing thereafter, with the exception of the final billing, shall be for the full amount of the monthly installment as provided for in the Lease.

4. Your rent checks should be made payable to _____ at _____.

5. The exact number of rentable/usable square feet within the Premises is _____ square feet.

6. Tenant's Share as adjusted based upon the exact number of usable square feet within the Premises is _____%.

"Landlord":

_____ ,
a _____
_____

By: _____
_____
Its: _____
_____

Agreed to and Accepted as
of_____ , 200__.

"Tenant":

_____

a _____

By: _____

Its: _____

EXHIBIT D

BRITANNIA LIFE SCIENCE CENTER

FORM OF TENANT'S ESTOPPEL CERTIFICATE

The undersigned as Tenant under that certain Lease (the "**Lease**") made and entered into as of _____, 20___ by and between _____ as Landlord, and the undersigned as Tenant, for Premises consisting of a portion of the building located at _____, California, certifies as follows:

1. Attached hereto as **Exhibit A** is a true and correct copy of the Lease and all amendments and modifications thereto. The documents contained in **Exhibit A** represent the entire agreement between the parties as to the Premises.

2. The undersigned currently occupies the Premises described in the Lease, the Lease Term commenced on _____, and the Lease Term expires on _____, and the undersigned has no option to terminate or cancel the Lease or to purchase all or any part of the Premises, the Building and/or the Project, except as expressly set forth in the Lease.

3. Base Rent became payable on _____.

4. The Lease is in full force and effect and has not been modified, supplemented or amended in any way except as provided in **Exhibit A**.

5. Tenant has not transferred, assigned, or sublet any portion of the Premises nor entered into any license or concession agreements with respect thereto except as follows:

6. Tenant shall not modify the documents contained in **Exhibit A** without the prior written consent of Landlord's mortgagee.

7. All monthly installments of Base Rent, all Additional Rent and all monthly installments of estimated Additional Rent have been paid when due through _____. The current monthly installment of Base Rent is $_____.

8. To Tenant's actual knowledge, without inquiry, all conditions of the Lease to be performed by Landlord necessary to the enforceability of the Lease have been satisfied and Landlord is not in default thereunder. In addition, the undersigned has not delivered any notice to Landlord regarding a default by Landlord thereunder. The Lease does not require Landlord to provide any rental concessions or to pay any leasing brokerage commissions except as expressly set forth therein.

9. No rental has been paid more than thirty (30) days in advance and no security has been deposited with Landlord except as provided in the Lease. Neither Landlord, nor its successors or assigns, shall in any event be liable or responsible for, or with respect to, the retention, application and/or return to Tenant of any security deposit paid to any prior landlord of the Premises, whether or not still held by any such prior landlord, unless and until the party from whom the security deposit is being sought, whether it be a lender, or any of its successors or assigns, has actually received for its own account, as landlord, the full amount of such security deposit.

10. To Tenant's actual knowledge, without inquiry, as of the date hereof, there are no existing defenses or offsets, or, to the undersigned's knowledge, claims or any basis for a claim, that the undersigned has against Landlord.

11. If Tenant is a corporation or partnership, Tenant hereby represents and warrants that Tenant is a duly formed and existing entity qualified to do business in California and that Tenant has full right and authority to execute and deliver this Estoppel Certificate and that each person signing on behalf of Tenant is authorized to do so.

12. There are no actions pending against the undersigned under the bankruptcy or similar laws of the United States or any state.

13. Tenant is in full compliance with all federal, state and local laws, ordinances, rules and regulations affecting its use of the Premises, including, but not limited to, those laws, ordinances, rules or regulations relating to hazardous or toxic materials. Tenant has never permitted its agents, employees or contractors to engage in the generation, manufacture, treatment, use, storage, disposal or discharge of any hazardous, toxic or dangerous waste, substance or material in, on, under or about the Project or the Premises or any adjacent premises or property in violation of any federal, state or local law, ordinance, rule or regulation.

14. To the undersigned's knowledge, all tenant improvement work to be performed by Landlord under the Lease has been completed in accordance with the Lease and has been accepted by the undersigned and all reimbursements and allowances due to the undersigned under the Lease in connection with any tenant improvement work have been paid in full. All work (if any) in the common areas required by the Lease to be completed by Landlord has been completed and all parking spaces required by the Lease have been furnished and/or all parking ratios required by the Lease have been met.

The undersigned acknowledges that this Estoppel Certificate may be delivered to Landlord or to a prospective mortgagee or prospective purchaser, and acknowledges that said prospective mortgagee or prospective purchaser will be relying upon the statements contained herein in making the loan or acquiring the property of which the Premises are a part and that receipt by it of this certificate is a condition of making such loan or acquiring such property.

Executed at _____ on the ____ day of _____, 200_.

"Tenant":

_____

_____,

a _____

By: _____

Its: _____

By: _____

Its: _____

EXHIBIT E

BRITANNIA LIFE SCIENCE CENTER

ENVIRONMENTAL QUESTIONNAIRE

ENVIRONMENTAL QUESTIONNAIRE
FOR COMMERCIAL AND INDUSTRIAL PROPERTIES

Tenant Name:

Lease Address:

Lease Type (check correct box – *right click to properties*): ☐ **Primary Lease/Lessee**
☐ **Sublease from:** _____

Instructions: The following questionnaire is to be completed by the Lessee representative with knowledge of the planned operations for the specified building/location. Please print clearly and attach additional sheets as necessary.

1.0 PROCESS INFORMATION

Describe planned site use, including a brief description of manufacturing processes and/or pilot plants planned for this site, if any.

_____

_____

_____

2.0 HAZARDOUS MATERIALS – OTHER THAN WASTE

Will (or are) non-waste hazardous materials be/being used or stored at this site? If so, continue with the next question. If not, go to Section 3.0.

2.1 Are any of the following materials handled on the Property? ☐ Yes ☐ No

[*A material is handled if it is used, generated, processed, produced, packaged, treated, stored, emitted, discharged, or disposed.]* If YES, check *(right click to properties)* the applicable correct Fire Code hazard categories below.

☐ Combustible dusts/fibers	☐ Explosives	☐ Flammable liquids
☐ Combustible liquids (e.g., oils)	☐ Compressed gas - inert	☐ Flammable solids/pyrophorics
☐ Cryogenic liquids - inert	☐ Compressed gas - flammable/pyrophoric	☐ Organic peroxides
☐ Cryogenic liquids - flammable	☐ Compressed gas - oxidizing	☐ Oxidizers - solid or liquid
☐ Cryogenic liquids - oxidizing	☐ Compressed gas - toxic	☐ Reactives - unstable or water reactive
☐ Corrosives - solid or liquid	☐ Compressed gas - corrosive	☐ Toxics - solid or liquid

2-2. For all materials checked in Section 2.1 above, please list the specific material(s), use(s), and quantities of each used or stored on the site in the table below; or attach a separate inventory. *NOTE: If proprietary, the constituents need not be named but the hazard information and volumes are required.*

Material/ Chemical	Physical State (Solid, Liquid, or Gas)	Container Size	Number of Containers Used & Stored	Total Quantity	Units (pounds for solids, gallons or liters for liquids, & cubic feet for gases)

2-3. Describe the planned storage area location(s) for the materials in Section 2-2 above. Include site maps and drawings as appropriate.

2-4. Other hazardous materials. Check below (*right click to properties)* if applicable. *NOTE: If either of the latter two are checked (BSL-3 and/or radioisotope/radiation), be advised that not all lease locations/cities or lease agreements allow these hazards; and if either of these hazards are planned, additional information will be required with copies of oversight agency authorizations/licenses as they become available.*

☐ Risk Group 2/Biosafety Level-2 Biohazards ☐ Risk Group 3/Biosafety Level-3 Biohazards ☐ Radioisotopes/Radiation

3.0 HAZARDOUS WASTE (i.e., REGULATED CHEMICAL WASTE)

Are (or will) hazardous wastes (be) generated? ☐ Yes ☐ No

If YES, continue with the next question. If not, skip this section and go to section 4.0.

3.1 Are or will any of the following hazardous (CHEMICAL) wastes generated, handled, or disposed of (where applicable and allowed) on the property?

☐ Liquids	☐ Process sludges	☐ PCBs
☐ Solids	☐ Metals	☐ wastewater

3-2. List and estimate the quantities of hazardous waste identified in Question 3-1 above.

HAZRDOUS (CHEMICAL) WASTE GENERATED	SOURCE	WASTE TYPE: RCRA listed (federal)	WASTE TYPE: Non-RCRA (Calif-ornia ONLY or recycle)	APPROX. MONTHLY QUANTITY with units	DISPOSITION [e.g., off-site landfill, incineration, fuel blending scrap metal; wastewater neutralization (onsite or off-site)]
		☐	☐		
		☐	☐		
		☐	☐		
		☐	☐		
		☐	☐		

3-3. Waste characterization by: Process knowledge ☐ EPA lab analysis ☐ Both ☐

3-4. Please include name, location, and permit number (e.g. EPA ID No.) for transporter and disposal facility if applicable. Attach separate pages as necessary. *If not yet known, write "TBD."*

Hazardous Waste Transporter/Disposal Facility Name	Facility Location	Transporter (T) or Disposal (D) Facility	Permit Number

3-5. Are pollution controls or monitoring employed in the process to prevent or minimize the release of wastes into the environment? *NOTE: This does NOT mean fume hoods; examples include air scrubbers, cyclones, carbon or HEPA filters at building exhaust fans, sedimentation tanks, pH neutralization systems for wastewater, etc.*

☐ Yes ☐ No

If YES, please list/describe: _____

4.0 OTHER REGULATED WASTE (i.e., REGULATED BIOLOGICAL WASTE, referred to as "Medical Waste" in California)

4-1. Will (or do) you generate medical waste? ☐ Yes ☐ No If NO, skip to Section 5.0.

4-2. Check the types of waste that will be generated, all of which fall under the California Medical Waste Act:

☐ Contaminated sharps (i.e., if contaminated with ³ Risk Group 2 materials)	☐ Animal carcasses	☐ Pathology waste known or suspected to be contaminated with ³ Risk Group 2 pathogens)
☐ Red bag biohazardous waste (i.e., with ³ Risk Group 2 materials) for autoclaving	☐ Human or non-human primate blood, tissues, etc. (e.g., clinical specimens)	☐ Trace Chemotherapeutic Waste and/or Pharmaceutical waste NOT otherwise regulated as RCRA chemical waste

4-3. What vendor will be used for off-site autoclaving and/or incineration?

4-5. Do you have a Medical Waste Permit for this site? ☐ Yes ☐ No, not required.
☐ No, but an application will be submitted.

5.0 UNDERGROUND STORAGE TANKS (USTS) & ABOVEGROUND STORAGE TANKS (ASTS)

5-1. Are underground storage tanks (USTs), aboveground storage tanks (ASTs), or associated pipelines used for the storage of petroleum products, chemicals, or liquid wastes present on site (lease renewals) or required for planned operations (new tenants)? ☐ Yes ☐ No

NOTE: If you will have your own diesel emergency power generator, then you will have at least one AST! [NOTE: If a backup generator services multiple tenants, then the landlord usually handles the permits.]

If NO, skip to section 6.0. If YES, please describe capacity, contents, age, type of the USTs or ASTs, as well any associated leak detection/spill prevention measures. Please attach additional pages if necessary.

UST or AST	Capacity (gallons)	Contents	Year Installed	Type (Steel, Fiberglass, etc.)	Associated Leak Detection / Spill Prevention Measures*

* NOTE: The following are examples of leak detection / spill prevention measures: integrity testing, inventory reconciliation, leak detection system, overfill spill protection, secondary containment, cathodic protection.

5-2. Please provide copies of written tank integrity test results and/or monitoring documentation, if available.

5-3. Is the UST/AST registered and permitted with the appropriate regulatory agencies? ☐ Yes ☐ No, not yet

If YES, please attach a copy of the required permit(s). *See Section 7-1 for the oversight agencies that issue permits, with the exception of those for diesel emergency power generators which are permitted by the local Air Quality District (Bay Area Air Quality Management District = BAAQMD; or San Diego Air Pollution Control District = San Diego APCD).*

5-4. If this Questionnaire is being completed for a lease renewal, and if any of the USTs/ASTs have leaked, please state the substance released, the media(s) impacted (e.g., soil, water, asphalt, etc.), the actions taken, and all remedial responses to the incident.

_____

_____

_____

5-5. If this Questionnaire is being completed for a lease renewal, have USTs/ASTs been removed from the Property?

☐ Yes ☐ No

If YES, please provide any official closure letters or reports and supporting documentation (e.g., analytical test results, remediation report results, etc.).

5-6. For Lease renewals, are there any above or below ground pipelines on site used to transfer chemicals or wastes?

☐ Yes ☐ No

For new tenants, are installations of this type required for the planned operations? ☐ Yes ☐ No

If YES to either question in this section 5-6, please describe.

_____

_____

_____

6.0 ASBESTOS CONTAINING BUILDING MATERIALS

Please be advised that an asbestos survey may have been performed at the Property. If provided, please review the information that identifies the locations of known asbestos containing material or presumed asbestos containing material. All personnel and appropriate subcontractors should be notified of the presence of these materials, and informed not to disturb these materials. Any activity that involves the disturbance or removal of these materials must be done by an appropriately trained individual/contractor.

7.0 OTHER REGULATORY PERMITS/REQUIREMENTS

7-1. Does the operation have or require an industrial wastewater permit to discharge into the local National Pollutant Discharge Elimination System (NPDES)? *[Example: This applies when wastewater from equipment cleaning is routed through a pH neutralization system prior to discharge into the sanitary or lab sewer for certain pharmaceutical manufacturing wastewater; etc.]* Permits are obtained from the regional sanitation district that is treating wastewater.

☐ Yes ☐ No , but one will be prepared and submitted to the Landlord property management company.

If so, please attach a copy of this permit or provide it later when it has been prepared.

7-2. Has a Hazardous Materials Business Plan (HMBP) been developed for the site and submitted via the State of California Electronic Reporting System (CERS)? *[NOTE: The trigger limits for having to do this are ³ 200 cubic feet if any one type of compressed gas (except for carbon dioxide and inert simple asphyxiant gases, which have a higher trigger limit of ³ 1,000 cubic feet); ³ 55 gallons if any one type of hazardous chemical liquid; and ³500 pounds of any one type of hazardous chemical solid. So a full-sixe gas cylinder and a 260-liter of liquid nitrogen are triggers! Don't forget the diesel fuel in a backup emergency generator if the diesel tank size is ³ 55 gallons and it is permitted under the tenant (rather than under the landlord).]* NOTE: Each local Certified Unified Program Agency (CUPA) in California governs the HMBP process so start there. Examples: the CUPA for cities in San Mateo County is the County Environmental Health Department; the CUPA for the City of Hayward, CA is the Hayward Fire Department; the CUPA for Mountain View is the Mountain View Fire Department; and, the CUPA for San Diego is the County of San Diego Hazardous Materials Division (HMD),

☐ Yes ☐ No, not required. ☐ No, but one will be prepared and submitted, and a copy will be provided to the landlord property management company.

If one has been completed, please attach a copy. Continue to provide updated versions as they are completed. This is a legal requirement in that State law requires that the owner/operator of a business located on leased or rented real property shall notify, in writing, the owner of the property that the business is subject to and is in compliance with the Hazardous Materials Business Plan requirements (Health and Safety Code Chapter 6.95 Section 25505.1).

7-3. NOTE: Please be advised that if you are involved in any tenant improvements that require a construction permit, you will be asked to provide the local city with a Hazardous Materials Inventory Statement (HMIS) to ensure that your hazardous chemicals fall within the applicable Fire Code fire control area limits for the applicable construction occupancy of the particular building. The HMIS will include much of the information listed in Section 2-2. Neither the landlord nor the landlord's property management company expressly warrants that the inventory provided in Section 2-2 will necessarily meet the applicable California Fire Code fire control area limits for building occupancy, especially in shared tenant occupancy situations. It is the responsibility of the tenant to ensure that a facility and site can legally handle the intended operations and hazardous materials desired/ needed for its operations, but the landlord is happy to assist in this determination when possible.

CERTIFICATION

I am familiar with the real property described in this questionnaire. By signing below, I represent and warrant that the answers to the above questions are complete and accurate to the best of my knowledge. I also understand that Lessor will rely on the completeness and accuracy of my answers in assessing any environmental liability risks associated with the property.

Signature: _____

Name: _____

Title: _____

Date: _____

Telephone: _____

EXHIBIT F

TENANT'S PROPERTY

The following items, to the extent (i) not purchased with the Tenant Improvement Allowance or Additional Improvement Allowance, and (ii) not tied into the Base Building systems, shall be deemed "Tenant's Property":

1. All moveable furniture and equipment that is not "built-in".
2. Moveable lab casework (other than "built-in" lab casework), including moveable lab benches.
3. Servers, server racks and back-up batteries.
4. Furniture.
5. Portable fume hoods.
6. Biosafety cabinets.
7. Stand-alone freezers, ice makers, autoclave, portable glass wash and incubators.

EXHIBIT G

FORM OF LETTER OF CREDIT

(Letterhead of a money center bank acceptable to the Landlord)

FAX NO. [(___) ___-____]
SWIFT: [Insert No., if any]

[Insert Bank Name And Address]

DATE OF ISSUE: _____

BENEFICIARY:
[Insert Beneficiary Name And Address]

APPLICANT:
[Insert Applicant Name And Address]

LETTER OF CREDIT NO. _____

EXPIRATION DATE:
_____ AT OUR COUNTERS

AMOUNT AVAILABLE:
USD[Insert Dollar Amount]
(U.S. DOLLARS [Insert Dollar Amount])

LADIES AND GENTLEMEN:

WE HEREBY ESTABLISH OUR IRREVOCABLE STANDBY LETTER OF CREDIT NO. _____ IN YOUR FAVOR FOR THE ACCOUNT OF [Insert Tenant's Name], A [Insert Entity Type], UP TO THE AGGREGATE AMOUNT OF USD[Insert Dollar Amount] ([Insert Dollar Amount] U.S. DOLLARS) EFFECTIVE IMMEDIATELY AND EXPIRING ON (Expiration Date) AVAILABLE BY PAYMENT UPON PRESENTATION OF YOUR DRAFT AT SIGHT DRAWN ON [Insert Bank Name] WHEN ACCOMPANIED BY THE FOLLOWING DOCUMENT(S):

1. THE ORIGINAL OF THIS IRREVOCABLE STANDBY LETTER OF CREDIT AND AMENDMENT(S), IF ANY.

2. BENEFICIARY'S SIGNED STATEMENT PURPORTEDLY SIGNED BY AN AUTHORIZED REPRESENTATIVE OF [Insert Landlord's Name], A [Insert Entity Type] ("LANDLORD") STATING THE FOLLOWING:

"THE UNDERSIGNED HEREBY CERTIFIES THAT THE LANDLORD, EITHER (A) UNDER THE LEASE (DEFINED BELOW), OR (B) AS A RESULT OF THE TERMINATION OF SUCH LEASE, HAS THE RIGHT TO DRAW DOWN THE AMOUNT OF USD_____ IN ACCORDANCE WITH THE TERMS OF THAT CERTAIN OFFICE LEASE DATED [Insert Lease Date], AS AMENDED (COLLECTIVELY, THE "LEASE"), OR SUCH AMOUNT CONSTITUTES DAMAGES OWING BY THE TENANT TO BENEFICIARY RESULTING FROM THE BREACH OF SUCH LEASE BY THE TENANT THEREUNDER, OR THE TERMINATION OF SUCH LEASE, AND SUCH AMOUNT REMAINS UNPAID AT THE TIME OF THIS DRAWING."

OR

"THE UNDERSIGNED HEREBY CERTIFIES THAT WE HAVE RECEIVED A WRITTEN NOTICE OF [Insert Bank Name]'S ELECTION NOT TO EXTEND ITS STANDBY LETTER OF CREDIT NO. _____ AND HAVE NOT RECEIVED A REPLACEMENT LETTER OF CREDIT WITHIN AT LEAST THIRTY (30) DAYS PRIOR TO THE PRESENT EXPIRATION DATE."

OR

"THE UNDERSIGNED HEREBY CERTIFIES THAT BENEFICIARY IS ENTITLED TO DRAW DOWN THE FULL AMOUNT OF LETTER OF CREDIT NO. _____ AS THE RESULT OF THE FILING OF A VOLUNTARY PETITION UNDER THE U.S. BANKRUPTCY CODE OR A STATE BANKRUPTCY CODE BY THE TENANT UNDER THAT CERTAIN OFFICE LEASE DATED [Insert Lease Date], AS AMENDED (COLLECTIVELY, THE "LEASE"), WHICH FILING HAS NOT BEEN DISMISSED AT THE TIME OF THIS DRAWING."

OR

"THE UNDERSIGNED HEREBY CERTIFIES THAT BENEFICIARY IS ENTITLED TO DRAW DOWN THE FULL AMOUNT OF LETTER OF CREDIT NO. _____ AS THE RESULT OF AN INVOLUNTARY PETITION HAVING BEEN FILED UNDER THE U.S. BANKRUPTCY CODE OR A STATE BANKRUPTCY CODE AGAINST THE TENANT UNDER THAT CERTAIN OFFICE LEASE DATED [Insert Lease Date], AS AMENDED (COLLECTIVELY, THE "LEASE"), WHICH FILING HAS NOT BEEN DISMISSED AT THE TIME OF THIS DRAWING."

OR

"THE UNDERSIGNED HEREBY CERTIFIES THAT BENEFICIARY IS ENTITLED TO DRAW DOWN THE FULL AMOUNT OF LETTER OF CREDIT NO. _____ AS THE RESULT OF THE REJECTION, OR DEEMED REJECTION, OF THAT CERTAIN OFFICE LEASE DATED [Insert Lease Date], AS AMENDED, UNDER SECTION 365 OF THE U.S. BANKRUPTCY CODE."

SPECIAL CONDITIONS:

PARTIAL DRAWINGS AND MULTIPLE PRESENTATIONS MAY BE MADE UNDER THIS STANDBY LETTER OF CREDIT, PROVIDED, HOWEVER, THAT EACH SUCH DEMAND THAT IS PAID BY US SHALL REDUCE THE AMOUNT AVAILABLE UNDER THIS STANDBY LETTER OF CREDIT.

ALL INFORMATION REQUIRED WHETHER INDICATED BY BLANKS, BRACKETS OR OTHERWISE, MUST BE COMPLETED AT THE TIME OF DRAWING. [Please Provide The Required Forms For Review, And Attach As Schedules To The Letter Of Credit.]

ALL SIGNATURES MUST BE MANUALLY EXECUTED IN ORIGINALS.

ALL BANKING CHARGES ARE FOR THE APPLICANT'S ACCOUNT.

IT IS A CONDITION OF THIS STANDBY LETTER OF CREDIT THAT IT SHALL BE DEEMED AUTOMATICALLY EXTENDED WITHOUT AMENDMENT FOR A PERIOD OF ONE YEAR FROM THE PRESENT OR ANY FUTURE EXPIRATION DATE, UNLESS AT LEAST SIXTY (60) DAYS PRIOR TO THE EXPIRATION DATE WE SEND YOU NOTICE BY NATIONALLY RECOGNIZED OVERNIGHT COURIER SERVICE THAT WE ELECT NOT TO EXTEND THIS LETTER OF CREDIT FOR ANY SUCH ADDITIONAL PERIOD. SAID NOTICE WILL BE SENT TO THE ADDRESS INDICATED ABOVE, UNLESS A CHANGE OF ADDRESS IS OTHERWISE NOTIFIED BY YOU TO US IN WRITING BY RECEIPTED MAIL OR COURIER. ANY NOTICE TO US WILL BE DEEMED EFFECTIVE ONLY UPON ACTUAL RECEIPT BY US AT OUR DESIGNATED OFFICE. IN NO EVENT, AND WITHOUT FURTHER NOTICE FROM OURSELVES, SHALL THE EXPIRATION DATE BE EXTENDED BEYOND A FINAL EXPIRATION DATE OF ___ (60 days from the Lease Expiration Date).

THIS LETTER OF CREDIT MAY BE TRANSFERRED SUCCESSIVELY IN WHOLE OR IN PART ONLY UP TO THE THEN AVAILABLE AMOUNT IN FAVOR OF A NOMINATED TRANSFEREE ("TRANSFEREE"), ASSUMING SUCH TRANSFER TO SUCH TRANSFEREE IS IN COMPLIANCE WITH ALL APPLICABLE U.S. LAWS AND REGULATIONS. AT THE TIME OF TRANSFER, THE ORIGINAL LETTER OF CREDIT AND ORIGINAL AMENDMENT(S) IF ANY, MUST BE SURRENDERED TO US TOGETHER WITH OUR TRANSFER FORM (AVAILABLE UPON REQUEST) AND PAYMENT OF OUR CUSTOMARY TRANSFER FEES, WHICH FEES SHALL BE PAYABLE BY APPLICANT (PROVIDED THAT BENEFICIARY MAY, BUT SHALL NOT BE OBLIGATED TO, PAY SUCH FEES TO US ON BEHALF OF APPLICANT, AND SEEK REIMBURSEMENT THEREOF FROM APPLICANT). IN CASE OF ANY TRANSFER UNDER THIS LETTER OF CREDIT, THE DRAFT AND ANY REQUIRED STATEMENT MUST BE EXECUTED BY THE TRANSFEREE AND WHERE THE BENEFICIARY'S NAME APPEARS WITHIN THIS STANDBY LETTER OF CREDIT, THE TRANSFEREE'S NAME IS AUTOMATICALLY SUBSTITUTED THEREFOR.

ALL DRAFTS REQUIRED UNDER THIS STANDBY LETTER OF CREDIT MUST BE MARKED: "DRAWN UNDER [Insert Bank Name] STANDBY LETTER OF CREDIT NO. _____."

WE HEREBY AGREE WITH YOU THAT IF DRAFTS ARE PRESENTED TO [Insert Bank Name] UNDER THIS LETTER OF CREDIT AT OR PRIOR TO [Insert Time – (*e.g.*, 11:00 AM)], ON A BUSINESS DAY, AND PROVIDED THAT SUCH DRAFTS PRESENTED CONFORM TO THE TERMS AND CONDITIONS OF THIS LETTER OF CREDIT, PAYMENT SHALL BE INITIATED BY US IN IMMEDIATELY AVAILABLE FUNDS BY OUR CLOSE OF BUSINESS ON THE SUCCEEDING BUSINESS DAY. IF DRAFTS ARE PRESENTED TO [Insert Bank Name] UNDER THIS LETTER OF CREDIT AFTER [Insert Time – (*e.g.*, 11:00 AM)], ON A BUSINESS DAY, AND PROVIDED THAT SUCH DRAFTS CONFORM WITH THE TERMS AND CONDITIONS OF THIS LETTER OF CREDIT, PAYMENT SHALL BE INITIATED BY US IN IMMEDIATELY AVAILABLE FUNDS BY OUR CLOSE OF BUSINESS ON THE SECOND SUCCEEDING BUSINESS DAY. AS USED IN THIS LETTER OF CREDIT, "BUSINESS DAY" SHALL MEAN ANY DAY OTHER THAN A SATURDAY, SUNDAY OR A DAY ON WHICH BANKING INSTITUTIONS IN THE STATE OF CALIFORNIA ARE AUTHORIZED OR REQUIRED BY LAW TO CLOSE. IF THE EXPIRATION DATE FOR THIS LETTER OF CREDIT SHALL EVER FALL ON A DAY WHICH IS NOT A BUSINESS DAY THEN SUCH EXPIRATION DATE SHALL AUTOMATICALLY BE EXTENDED TO THE DATE WHICH IS THE NEXT BUSINESS DAY.

PRESENTATION OF A DRAWING UNDER THIS LETTER OF CREDIT MAY BE MADE ON OR PRIOR TO THE THEN CURRENT EXPIRATION DATE HEREOF BY HAND DELIVERY, COURIER SERVICE, OVERNIGHT MAIL, OR FACSIMILE. PRESENTATION BY FACSIMILE TRANSMISSION SHALL BE BY TRANSMISSION OF THE ABOVE REQUIRED SIGHT DRAFT DRAWN ON US TOGETHER WITH THIS LETTER OF CREDIT TO OUR FACSIMILE NUMBER, [Insert Fax Number – (___) ___-____], ATTENTION: [Insert Appropriate Recipient], WITH TELEPHONIC CONFIRMATION OF OUR RECEIPT OF SUCH FACSIMILE TRANSMISSION AT OUR TELEPHONE NUMBER [Insert Telephone Number – (___) ___-____] OR TO SUCH OTHER FACSIMILE OR TELEPHONE NUMBERS, AS TO WHICH YOU HAVE RECEIVED WRITTEN NOTICE FROM US AS BEING THE APPLICABLE SUCH NUMBER. WE AGREE TO NOTIFY YOU IN WRITING, BY NATIONALLY RECOGNIZED OVERNIGHT COURIER SERVICE, OF ANY CHANGE IN SUCH DIRECTION. ANY FACSIMILE PRESENTATION PURSUANT TO THIS PARAGRAPH SHALL ALSO STATE THEREON THAT THE ORIGINAL OF SUCH SIGHT DRAFT AND LETTER OF CREDIT ARE BEING REMITTED, FOR DELIVERY ON THE NEXT BUSINESS DAY, TO [Insert Bank Name] AT THE APPLICABLE ADDRESS FOR PRESENTMENT PURSUANT TO THE PARAGRAPH FOLLOWING THIS ONE.

WE HEREBY ENGAGE WITH YOU THAT ALL DOCUMENT(S) DRAWN UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS STANDBY LETTER OF CREDIT WILL BE DULY HONORED IF DRAWN AND PRESENTED FOR PAYMENT AT OUR OFFICE LOCATED AT [Insert Bank Name], [Insert Bank Address], ATTN: [Insert Appropriate Recipient], ON OR BEFORE THE EXPIRATION DATE OF THIS CREDIT, (Expiration Date).

IN THE EVENT THAT THE ORIGINAL OF THIS STANDBY LETTER OF CREDIT IS LOST, STOLEN, MUTILATED, OR OTHERWISE DESTROYED, WE HEREBY AGREE TO ISSUE A DUPLICATE ORIGINAL HEREOF UPON RECEIPT OF A WRITTEN REQUEST FROM YOU AND A CERTIFICATION BY YOU (PURPORTEDLY SIGNED BY YOUR AUTHORIZED REPRESENTATIVE) OF THE LOSS, THEFT, MUTILATION, OR OTHER DESTRUCTION OF THE ORIGINAL HEREOF.

EXCEPT SO FAR AS OTHERWISE EXPRESSLY STATED HEREIN, THIS STANDBY LETTER OF CREDIT IS SUBJECT TO THE "INTERNATIONAL STANDBY PRACTICES" (ISP 98) INTERNATIONAL CHAMBER OF COMMERCE (PUBLICATION NO. 590).

Very truly yours,

(Name of Issuing Bank)

By: _____

EXHIBIT H

FORM OF AGREEMENT FOR ADDITIONAL MONTHLY BASE RENT

FIRST AMENDMENT TO LEASE

This FIRST AMENDMENT TO LEASE ("**Amendment**") is made and entered into as of _____ ___, 2016, by and between **BAYSIDE ACQUISITION, LLC,** a Delaware limited liability company ("**Landlord**"), and **ANNEXON, INC.**, a Delaware corporation ("**Tenant**").

R E C I T A L S :

A. Landlord and Tenant are parties to that certain Lease dated November ___, 2016, (the "**Lease**"), pursuant to which Tenant leases that certain space (the "**Premises**") containing approximately 12,316 rentable square feet of space in the building located at 180 Kimball Way, South San Francisco, California (the "**Building**").

B. Landlord and Tenant desire to amend the Lease on the terms and conditions set forth in this Amendment.

A G R E E M E N T :

NOW, THEREFORE, in consideration of the foregoing recitals and the mutual covenants contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Terms. All capitalized terms when used herein shall have the same respective meanings as are given such terms in the Lease unless expressly provided otherwise in this Amendment.

2. Additional TI Allowance. Pursuant to the terms of Section 4 of the Tenant Work Letter attached to the Lease as **Exhibit B**, Tenant was entitled to an Additional TI Allowance of up to $455,000.00. Notwithstanding any provision to the contrary contained in the Lease, Landlord and Tenant hereby acknowledge and agree that Tenant has utilized _____ and __/100 Dollars ($_____.__) of the Additional TI Allowance (the "Utilized Additional TI Allowance").

4. Additional Monthly Base Rent. As a result of Tenant's use of the Utilized Additional TI Allowance, Tenant is required to pay additional monthly Base Rent calculated as provided in Section 4 of the Tenant Work Letter, which additional monthly Base Rent shall be equal to $_____ per month, payable on or before the first (1st) day of each month commencing as of _____, and continuing through the expiration of the initial Lease Term.

5. No Further Modification. Except as specifically set forth in this Amendment, all of the terms and provisions of the Lease shall remain unmodified and in full force and effect.

IN WITNESS WHEREOF, this Amendment has been executed as of the day and year first above written.

LANDLORD:

BAYSIDE ACQUISITION, LLC,,
a Delaware limited liability company

By: _____

Name: _____

Its: _____

By: _____

Name: _____

Its: _____

TENANT:

ANNEXON, INC.,
a Delaware corporation

By: _____

_____
Print Name

Its: _____

By: _____

_____
Print Name

Its: _____

LEASE

BRITANNIA LIFE SCIENCE CENTER

BAYSIDE ACQUISITION, LLC,

Delaware limited liability company,

as Landlord,

and

ANNEXON, INC.,

a Delaware corporation,

as Tenant.

Bayside Acquisition, LLC
[Britannia Life Science Center]
[Annexon, Inc.]

TABLE OF CONTENTS

INDEX

ANNEXON, INC.

2011 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 common stock of the Company.

(j) "Company" means Annexon, Inc., a Delaware corporation, or any successor thereto.

(k) "Consultant" means any individual, including an advisor, engaged by the Company or a Parent or Subsidiary to render services to such entity. For the avoidance of doubt, the term "Consultant" shall not include any entity or any non-natural person.

(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 2011 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 22,705,663 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 three (3) 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 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 (1st) 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, 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 under the Exchange Act as set forth in Rule 12h-1(f) promulgated under the Exchange Act, 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 (i) 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 the Participant upon the death or disability of the Participant. 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).

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 that may be delivered under the Plan and/or the number, class, and price of Shares 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 or 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. Beginning on the earlier of (i) the date that the aggregate number of Participants under this Plan is five hundred (500) or more and the Company is relying on the exemption provided by Rule 12h-1(f)(1) under the Exchange Act and (ii) the date that the Company is required to deliver information to Participants pursuant to Rule 701 under the Securities Act, and until such time as the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, is no longer relying on the exemption provided by Rule 12h-1(f)(1) under the Exchange Act or is no longer required to deliver information to Participants pursuant to Rule 701 under the Securities 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 or Rule 701 of the Securities Act.

Exhibit 21.1

LIST OF SUBSIDIARIES

Annexon Biosciences Australia Pty Ltd