

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

**Amendment No. 1
to
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

Unity Biotechnology, Inc.

(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

2834
(Primary Standard Industrial
Classification Code Number)

26-4726035
(I.R.S. Employer
Identification Number)

**3280 Bayshore Blvd
Brisbane, California 94005
(650) 416-1192**

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

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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, or a smaller reporting 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 (Do not check if a smaller reporting company) 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 to Section 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

Title of Securities Being Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee(3)
Common Stock, \$0.0001 par value per share	5,750,000 shares	\$18.00	\$103,500,000	\$12,886.00

(1) Includes 750,000 shares of common stock that the underwriters have the option to purchase.

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

(3) The registrant previously paid a total of \$10,583.00 in connection with previous filings of the registration statement. In accordance with Rule 457(a), an additional registration fee of \$2,303.00 is being paid with this amendment to the registration statement.

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

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The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion, dated April 23, 2018

Preliminary Prospectus

5,000,000 Shares



Common Stock

This is the initial public offering of shares of common stock by Unity Biotechnology, Inc.

Prior to this offering, there has been no public market for our common stock. It is currently estimated that the initial public offering price will be between \$16.00 and \$18.00 per share.

We have applied to list our common stock on The Nasdaq Global Select Market under the symbol "UBX."

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

Investing in our common stock involves risks. See the section titled "[Risk Factors](#)" beginning on page 13 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, or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Total
Initial public offering price	\$	\$
Underwriting discounts(1)	\$	\$
Proceeds to Unity Biotechnology, Inc., before expenses	\$	\$

(1) See the section titled "Underwriting" for additional information regarding compensation payable to the underwriters.

To the extent that the underwriters sell more than 5,000,000 shares of common stock, the underwriters have the option to purchase up to an additional 750,000 shares from us at the initial public offering price less the underwriting discount.

The underwriters expect to deliver the shares against payment in New York, New York on _____, 2018.

Goldman Sachs & Co. LLC

Morgan Stanley
Mizuho Securities

Citigroup

Prospectus dated _____, 2018

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Through and including _____, 2018 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

We and the underwriters have not authorized anyone to provide you any information other than that 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. We and the underwriters are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus is accurate only as of the date on the front cover of this prospectus. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside of the United States: we have not and the underwriters have not done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than the United States. Persons outside of the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside of the United States.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before deciding to invest in our common stock, you should read this entire prospectus carefully, including the sections of this prospectus entitled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes contained elsewhere in this prospectus. Unless the context otherwise requires or as otherwise noted, references in this prospectus to the "company," "Unity Biotechnology," "Unity," "we," "us" and "our" refer to Unity Biotechnology, Inc.

Unity Biotechnology, Inc.

Overview

Our mission is to extend human healthspan. We define healthspan, or healthy longevity, as the period of one's life unburdened by the diseases of aging. Enabled by foundational scientific insights, we have devoted over six years to identifying multiple mechanisms that we believe to be root causes of age-associated disease. We are utilizing these insights to develop a broad portfolio of drug candidates to treat these diseases of aging, and we plan to initiate our first clinical study of our lead drug candidate in the second quarter of 2018.

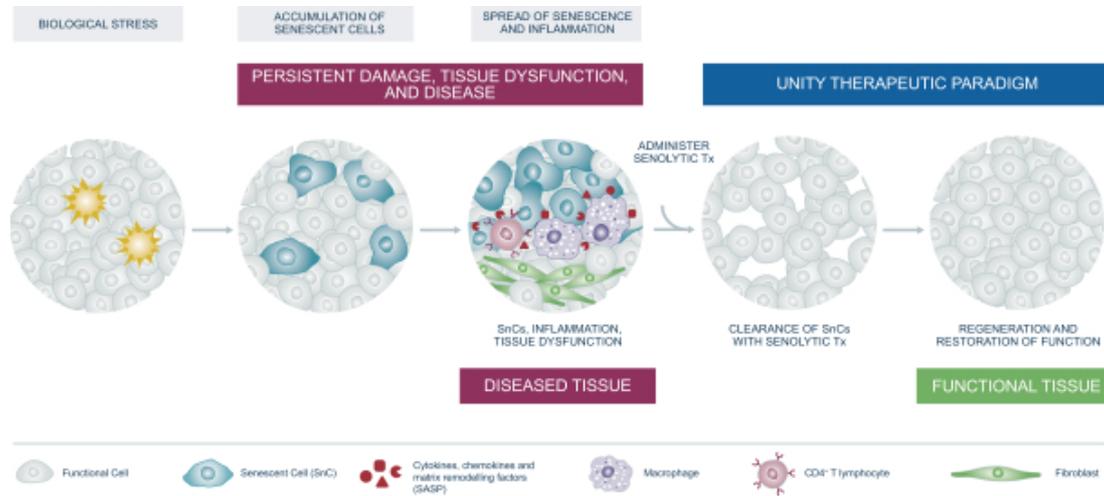
Age-associated diseases such as arthritis, vision loss, and cognitive decline cause considerable economic, personal, and societal burden. These diseases negatively impact quality of life, are typically chronic, and progress from the time of onset until death. It is estimated that providing healthcare for people over the age of 65 costs four to five times more than for younger individuals. According to the Centers for Disease Control and Prevention, this elderly population of Americans is expected to nearly double by 2050, increasing the economic burden of aging dramatically. Any success increasing longevity without treating underlying diseases of aging would only serve to increase this burden.

Over the last three decades, knowledge of the fundamental mechanisms of aging has advanced considerably. As a result of these advances, aging is no longer characterized as a single, over-arching process but rather as multiple biological and cellular processes working concurrently. We now have evidence that one of these mechanisms, the accumulation of senescent cells, is a major driver of many common age-associated diseases. The selective elimination of these cells extends both the healthspan and lifespan of animals, as we have demonstrated in preclinical studies published in *Nature* ("Naturally occurring P16lnk4a-positive cells shorten healthy lifespan," *Nature* (2016) and "Clearance of p16lnk4a-positive senescent cells delays ageing associated disorders," *Nature* (2011)) and *Science* ("Senescent intimal foam cells are deleterious at all stages of atherosclerosis," *Science* (2016)). In particular, in 2011, one of our scientific co-founders demonstrated that mice allowed to accumulate senescent cells aged more rapidly, and that the elimination of these accumulated cells blunted multiple aspects of aging. In 2016, another one of our scientific co-founders demonstrated that molecules able to selectively eliminate senescent cells, or senolytic molecules, could potentially blunt the senescence-driven effects of the cardiovascular disease atherosclerosis. *Science* listed these findings among the top breakthroughs of 2011 and 2016.

Cellular Senescence

Cellular senescence is a natural biological state in which a cell permanently halts division. As senescent cells accumulate with age, they begin secreting large quantities of more than 100 proteins,

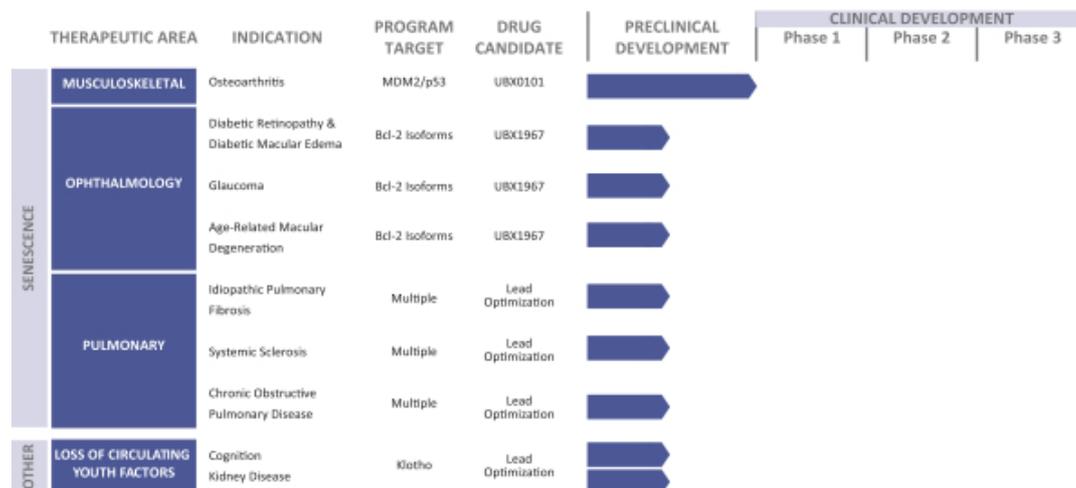
including inflammatory factors, proteases, fibrotic factors, and growth factors that disturb the tissue micro-environment. This collection of secreted proteins is referred to as the Senescence Associated Secretory Phenotype, or SASP. In addition to its effects on tissue function, the SASP contains factors that induce senescence in neighboring cells, setting off a cascade of events that culminates in the formation of the functionally aged and/or diseased tissue that underlies a variety of age-associated diseases. Senolytic medicines selectively eliminate senescent cells and stop the production of the SASP at its source, which we believe addresses a root cause of these diseases. As a result, we believe senolytic medicines could have a more durable impact on disease and could slow, halt, or reverse particular diseases of aging. The figure below illustrates the process through which the accumulation of senescent cells and accompanying SASP factors affect tissue function and our therapeutic approach.



Our Pipeline

We are developing a portfolio of programs targeting specific biological mechanisms implicated in diseases of aging. Our core therapeutic approach targets cellular senescence, and we are currently advancing programs in musculoskeletal, ophthalmologic, and pulmonary disorders. Our clinical development strategy is initially focused on the development of senolytic medicines designed to be administered locally into diseased tissue. After demonstrating efficacy in indications amenable to localized therapy, we plan to pursue the development of senolytic medicines that could be administered systemically to treat additional diseases of aging, such as kidney, liver, and heart disease. In addition to our efforts to eliminate senescent cells, we are also advancing other programs with the potential to extend human healthspan, including the administration of circulating youth factors and the enhancement of mitochondrial health.

Our current pipeline of programs is illustrated below:



Within our cellular senescence programs, our lead senolytic molecules, UBX0101 and UBX1967, designed for local treatment for the removal of accumulated senescent cells, are described below:

- UBX0101 is our lead drug candidate for musculoskeletal disease with an initial focus on osteoarthritis. This drug candidate is a potent senolytic small molecule inhibitor of the MDM2/p53 protein interaction. Disruption of this protein interaction can trigger the elimination of senescent cells. Our investigational new drug, or IND, application for UBX0101 was cleared by the U.S. Food and Drug Administration, or FDA, in April 2018, and we plan to initiate a Phase 1 clinical study in osteoarthritis in the second quarter of 2018. We expect to receive data from this clinical study in the first quarter of 2019.
- UBX1967 is our lead drug candidate for ophthalmologic diseases. This drug candidate is a potent senolytic small molecule inhibitor of specific members of the Bcl-2 family of apoptosis regulatory proteins. Senescent cells utilize pro-survival mechanisms to remain viable and rely on specific Bcl-2 protein family members to persist and accumulate in tissues. We plan to submit our IND application and commence a Phase 1 clinical study in an ophthalmologic indication in the second half of 2019.

In addition to the above, we expect to file one additional IND application in the second half of 2019 for a Phase 1 clinical study in either an additional ophthalmologic indication or an initial pulmonary indication. We retain worldwide rights to UBX0101 and have an option to an exclusive license for UBX1967 pursuant to our compound library and option agreement with Ascentage Pharma Group Corp. Ltd. See “Business—Licenses and Collaborations.”

Advantages of Our Approach

We believe that senolytic medicines—medicines that selectively eliminate senescent cells from diseased tissues—may have four advantages over other efforts to treat age-associated diseases:

- **Senolytic medicines target a root cause of diseases of aging.** Unlike treatments that inhibit the activity of a single factor (such as antibodies targeting single pro-inflammatory proteins), we believe a senolytic medicine that selectively eliminates accumulated senescent

cells and their associated SASP could simultaneously blunt the activity of numerous factors contributing to disease.

- **Senolytic medicines are dosed intermittently.** The administration of senolytic medicines would remove senescent cells from diseased tissue. As new senescent cells may take months or even years to re-accumulate, senolytic medicines could potentially be dosed infrequently. We believe that intermittent dosing may improve drug tolerability and patient adherence when compared to chronic therapies.
- **Senescent cells accumulate at sites of disease, simplifying multiple aspects of clinical development.** Our ability to quantify senescent cells and accompanying SASP factors in sites of disease may simplify clinical development through targeted indication selection, patient selection, and monitoring of therapeutic response.
- **Senolytic medicines restore tissues to a healthy state.** We believe senescent cells generally do not accumulate in young individuals and that the accumulation of senescent cells is unnecessary for normal tissue function. Our goal for the administration of senolytic medicines is to restore tissue to a functionally younger state.

We have secured our lead position in the discovery and development of senolytic medicines through our commitment to fundamental biological research and translational science. We have partnered with key academics and thought leaders to pursue areas of emerging aging science. We continue to recruit top tier scientists with the desire and drive to understand, uncover, and invent. We invest a significant proportion of resources and effort in emerging fields of aging science in order to transition fundamental scientific observations to the design and development of new therapeutics. We believe that we have built the internal research capabilities and scientific network to continue to be at the forefront of extending human healthspan.

Our Team

We have assembled an executive team of scientific, clinical, and business leaders with broad expertise in biotechnology. Our co-founder and President, Nathaniel (Ned) E. David, Ph.D., is a biochemist and experienced entrepreneur, having founded four biotechnology companies. Our Chief Executive Officer, Keith R. Leonard Jr., M.S., M.B.A., was CEO of KYTHERA Biopharmaceuticals from its founding through its acquisition in 2015 and held numerous leadership roles over thirteen years at Amgen. Our Chief Medical Officer, Jamie Dananberg, M.D., has held leadership roles at Takeda Pharmaceuticals and Eli Lilly & Co. and has overseen the development of eight FDA-approved products. Our Chief Scientific Officer, Daniel G. Marquess, D.Phil., served as Vice President and Head of Medicinal Chemistry at Theravance Biopharma. We have approximately 70 employees, over 65% of whom hold advanced degrees.

We have built a strong culture of teamwork with emphasis on external collaboration, providing us with access to rapidly-evolving science. We maintain more than a dozen active early-stage research and discovery focused collaborations with leading external academic institutions, including: the Buck Institute for Research on Aging; Massachusetts General Hospital; Mayo Clinic; the Medical Research Council (MRC, Imperial College); The University of California, San Francisco; and Yale University.

Our Strategy

To achieve our objective of building Unity into a leading healthspan company, we focus on two parallel efforts. First, we are committed to developing senolytic medicines that slow, halt, or reverse specific diseases of aging. Second, we dedicate significant resources and effort to better understand

additional fundamental aging mechanisms and translate these insights into human medicines. To achieve these core objectives we intend to:

- **Demonstrate in our clinical studies that local treatment with senolytic medicines can alter the course of an age-associated disease.** If we prove that local treatment with senolytic medicines can slow, halt, or reverse aspects of aging, we will be well-positioned to expand upon that success with numerous additional applications.
- **Continue research into the development of systemic senolytic medicines.** In order to realize the full potential of senolysis, we intend to explore the development of systemic senolytic medicines using multiple modalities, including small molecules and biologics.
- **Target aging mechanisms beyond cellular senescence.** In order to achieve our broader goal of extending human healthspan, we will continue to conduct fundamental research into additional aging mechanisms beyond cellular senescence, including loss of circulating youth factors and mitochondrial dysfunction.
- **Leverage our core science and biotechnology experience.** We strive to attract, retain, and incentivize a unique team with significant strengths and experience in basic science, biotechnology, medicinal chemistry, and clinical development. Over the last six years, our team has identified multiple mechanisms that can selectively eliminate senescent cells, created potent senolytic molecules, and developed proprietary animal models to monitor senescent cell clearance.
- **Opportunistically expand our product portfolio.** Our internal research has identified multiple biological pathways that are potential targets for diseases of aging. We will search for opportunities for potential in-licensing of novel medicines with rapid access to clinical development.
- **Continue to build a robust and defensible patent portfolio.** We are an innovative biotechnology company focused on developing novel insights into the biology and diseases of aging. We intend to continue to aggressively develop, file, and pursue patent protection for our innovative technologies.

Risks Associated with Our Business

Our ability to implement our business strategy is subject to numerous risks that you should be aware of before making an investment decision. These risks are described more fully in the section entitled "Risk Factors," immediately following this prospectus summary. These risks include the following, among others:

- We are a preclinical-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 losses for the foreseeable future, which, together with our limited operating history, make it difficult to assess our future viability.
- We will require substantial additional financing to achieve our goals, and a failure to obtain this capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our product development, other operations or commercialization efforts.
- Our core therapeutic approach to extending human healthspan is based on our understanding of cellular senescence. Utilizing senolytic molecules to treat age-associated diseases is a novel therapeutic approach, which exposes us to unforeseen risks and makes it difficult to predict the time and cost of drug development and potential for regulatory approval.

- Our business is dependent on the successful development, regulatory approval, and commercialization of our drug candidates, all of which are in early stages of development and none of which have been tested in a human subject.
- We may be unable to obtain regulatory approval for our drug candidates under applicable regulatory requirements. The denial or delay of any such approval would delay commercialization of our drug candidates and adversely impact our potential to generate revenue, our business and our results of operations.
- Clinical development involves a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results.
- It may be many years, if ever, before we develop senolytic medicines capable of systemic administration to treat systemic diseases of aging.
- We rely on third parties in the conduct of all of our preclinical studies and intend to rely on third parties in the conduct of all of our future clinical studies. 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 drug candidates.
- If we are unable to obtain, maintain and enforce intellectual property protection directed to our senolytic medicine platform 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.
- 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.

Corporate Information

We were founded on March 30, 2009, as a Delaware corporation under the name Forge, Inc. On January 28, 2015, we changed our name to Unity Biotechnology, Inc. Our principal executive offices are located at 3280 Bayshore Blvd., Suite 100, Brisbane, California 94005, and our telephone number is (650) 416-1192. Our website address is www.unitybiotechnology.com. The information on, or that can be accessed through, our website is not part of this prospectus. We have included our website address as an inactive textual reference only.

Unity Biotechnology and our logo are some of our trademarks used in this prospectus. This prospectus also includes trademarks, tradenames, and service marks that are the property of other organizations. Solely for convenience, our trademarks and tradenames referred to in this prospectus may appear without the ® and ™ symbol, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights, or the right of the applicable licensor to these trademarks and tradenames.

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 earlier of (1) the last day of the year following the fifth anniversary of the consummation of this offering, (2) the last day of the year in which we have total annual gross revenue of at least \$1.07 billion, (3) the last day of the 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. 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 only two years of audited financial statements, plus unaudited condensed 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, or Sarbanes Oxley;
- 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.

In addition, under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to avail ourselves of the extended transition period for complying with new or revised financial accounting standards. As a result of the accounting standards election, we will not be subject to the same implementation timing for new or revised accounting standards as other public companies that are not emerging growth companies which may make comparison of our financials to those of other public companies more difficult. Additionally, because we have taken advantage of certain reduced reporting requirements, the information contained herein may be different from the information you receive from other public companies in which you hold stock.

THE OFFERING

Issuer	Unity Biotechnology, Inc.
Common stock offered by us	5,000,000 shares.
Common stock to be outstanding after the offering	41,903,538 shares (or 42,653,538 shares if the underwriters exercise their option to purchase additional shares in full).
Underwriters' option to purchase additional shares	750,000 shares.
Use of proceeds	<p>We estimate that the net proceeds from this offering will be approximately \$76.1 million, or approximately \$87.9 million if the underwriters exercise their option to purchase additional shares in full, at an assumed initial public offering price of \$17.00 per share, the midpoint of the estimated price range set forth on the cover of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.</p> <p>We currently expect to use the net proceeds from this offering to fund our clinical development of UBX0101, our planned IND-enabling studies and Phase 1 clinical studies of UBX1967, internal research and development activities and for working capital and general corporate purposes. See "Use of Proceeds" on page 64 for a more complete description of the intended use of proceeds from this offering.</p>
Risk factors	See "Risk Factors" beginning on page 13 and other information included in this prospectus for a discussion of factors that you should consider carefully before deciding to invest in our common stock.
Directed Share Program	At our request, the underwriters have reserved up to 5.0% of the shares of common stock offered hereby, at the initial public offering price, to offer to directors, officers, employees, business associates and related persons of Unity Biotechnology, Inc. The number of shares of common stock available for sale to the general public will be reduced to the extent these individuals purchase such reserved shares. Any reserved shares that are not so purchased will be offered by the underwriters to the general public on the same basis as the other shares offered by this prospectus. Except for any shares

acquired by our directors and officers, shares purchased pursuant to the directed share program will not be subject to lock-up agreements with the underwriters. See “Underwriting” beginning on page 187.

Proposed Nasdaq Global Select Market symbol

“UBX”

The number of shares of common stock to be outstanding after this offering is based on 4,830,389 shares of common stock outstanding as of December 31, 2017, and includes an aggregate of 28,159,724 shares of common stock issuable upon conversion of our outstanding Series A-1, Series A-2 and Series B convertible preferred stock as of December 31, 2017 and 3,913,425 shares of common stock issuable upon conversion of our Series C convertible preferred stock issued in March and April 2018, and excludes the following:

- 4,365,964 shares of our common stock issuable upon the exercise of stock options to purchase common stock that were outstanding as of December 31, 2017, with a weighted average exercise price of \$3.07 per share;
- 918,595 shares of our common stock reserved for issuance pursuant to future awards under our 2013 Equity Incentive Plan, or the Plan, and associated amendments as of December 31, 2017;
- 96,610 shares of our common stock issuable upon the exercise of an outstanding warrant with an exercise price of \$0.18 per share;
- 763,501 shares of our common stock issuable upon the exercise of outstanding convertible preferred stock warrants with a weighted-average exercise price of \$0.65 per share;
- 739,551 shares of our common stock that we may be obligated to issue under our license agreements;
- 4,289,936 shares of common stock reserved for issuance pursuant to future awards under our 2018 Equity Incentive Award Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective immediately prior to the consummation of this offering; and
- 536,242 shares of common stock reserved for issuance pursuant to future awards under our Employee Stock Purchase Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective immediately prior to the consummation of this offering.

In addition, unless we specifically state otherwise, all information in this prospectus assumes:

- a 1-for-2.95 reverse stock split of our capital stock, which we effected on April 20, 2018;
- the conversion of all shares of our outstanding convertible preferred stock into an aggregate of 32,073,149 shares of common stock immediately prior to the consummation of this offering;
- the filing and effectiveness of our amended and restated certificate of incorporation in Delaware and the adoption of our amended and restated bylaws, each of which will occur immediately prior to the consummation of this offering;
- no exercise of outstanding stock options or warrants subsequent to December 31, 2017; and
- no exercise of the underwriters' option to purchase additional shares of common stock.

Unless otherwise specified and unless the context otherwise requires, we refer to our Series A-1, Series A-2, and Series B, convertible preferred stock outstanding at December 31, 2017 and Series C convertible preferred stock issued in March and April 2018 collectively as “convertible preferred stock” or “preferred stock” in this prospectus, as well as for financial reporting purposes and in the financial tables included in this prospectus, as more fully explained in Note 11 and Note 17 to our audited financial statements included in this prospectus.

SUMMARY FINANCIAL DATA

The following tables present summary financial data for our business. We derived the statements of operations data for the years ended December 31, 2016 and 2017, from our audited financial statements appearing elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that may be expected in the future. You should read this data together with our financial statements and related notes appearing elsewhere in this prospectus and the information under the captions "Selected Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

	<u>Year Ended December 31,</u>	
	<u>2016</u>	<u>2017</u>
	(in thousands, except share and per share data)	
Summary of Operations Data:		
Contribution revenue	\$ —	\$ 1,382
Operating expenses:		
Research and development	13,707	37,373
General and administrative	5,137	9,617
Total operating expenses	<u>18,844</u>	<u>46,990</u>
Loss from operations	(18,844)	(45,608)
Loss on extinguishment of promissory notes	(9,377)	—
Interest income (expense), net	(2,183)	1,055
Other expense, net	—	(103)
Net loss	<u>\$ (30,404)</u>	<u>\$ (44,656)</u>
Net loss per share, basic and diluted(1)	<u>\$ (11.42)</u>	<u>\$ (13.97)</u>
Weighted average number of shares used in computing net loss per share, basic and diluted(1)	<u>2,662,841</u>	<u>3,197,516</u>
Pro forma net loss per share, basic and diluted(1)		<u>\$ (1.49)</u>
Weighted average number of shares used in computing pro forma net loss per share, basic and diluted(1)		<u>30,039,385</u>

(1) See Notes 2 and 14 to our audited financial statements for an explanation of the calculations of our basic and diluted net loss per common share, pro forma net loss per common share, and the weighted-average number of common shares used in the computation of the per share amounts.

The table below presents our balance sheet data as of December 31, 2017:

- on an actual basis;
- on a pro forma basis to give effect to: (i) the sale and issuance in March and April 2018 of 3,913,425 shares of our Series C convertible preferred stock at \$15.3317 per share for net proceeds of \$59.9 million, (ii) the conversion of all shares of our outstanding Series A-1, Series A-2, Series B and Series C convertible preferred stock into an aggregate of 32,073,149 shares of common stock immediately prior to the consummation of this offering; and (iii) the filing and effectiveness of our amended and restated certificate of incorporation, which will occur, in each case, immediately prior to the consummation of this offering; and
- on a pro forma as adjusted basis to give further effect to the sale of 5,000,000 shares of common stock in this offering at an assumed initial public offering price of \$17.00 per share, the

midpoint of the estimated price range set forth on the cover of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	As of December 31, 2017		
	Actual	Pro Forma	Pro Forma As Adjusted(1)
	(In thousands)		
Balance Sheet Data:			
Cash and cash equivalents	\$ 7,298	\$ 67,178	\$ 143,228
Marketable securities	84,330	84,330	84,330
Working capital	80,983	140,863	216,913
Total assets	102,024	161,904	237,954
Convertible preferred stock	173,956	—	—
Accumulated deficit	(86,880)	(86,880)	(86,880)
Total stockholders' (deficit) equity	(83,113)	150,723	226,773

- (1) Each \$1.00 increase (decrease) in the assumed initial public offering price of \$17.00 per share (the midpoint of the estimated price range set forth on the cover of this prospectus), would increase (decrease) the amount of cash and cash equivalents, working capital, total assets and total stockholders' (deficit) equity by \$4.7 million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discount and commissions and estimated offering expenses payable by us. We may also increase (decrease) the number of shares we are offering. An increase (decrease) of 1,000,000 in the number of shares we are offering would increase (decrease) the amount of cash and cash equivalents, working capital, total assets and total stockholders' (deficit) equity by approximately \$15.8 million, assuming the assumed initial public offering price per share, as set forth on the cover page of this prospectus, remains the same. The pro forma as adjusted information is illustrative only and we will adjust this information based on the actual initial public offering price and other terms of this offering determined at pricing.

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 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 have a material adverse effect on our business, results of operations, financial condition 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 preclinical-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 losses for the foreseeable future, which, together with our limited operating history, make it difficult to assess our future viability.

We are a preclinical-stage biopharmaceutical company with a limited operating history. Biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of risk. We have not yet sought approval for commercial sale of any products and therefore have no products approved for commercial sale and have not generated any revenue from contracts with customers and have incurred losses in each year since our inception in March 2009. We have only a limited operating history upon which you can evaluate our business and prospects. In addition, we have limited experience and 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 biopharmaceutical industry. We only recently received clearance from the U.S. Food and Drug Administration, or FDA, of an Investigational New Drug, or IND, application for one of our lead drug candidates, UBX0101, a senolytic small-molecule inhibitor of MDM2/p53, and we have not yet initiated clinical studies for any of our drug candidates.

We have had significant operating losses since our inception. Our net loss for the years ended December 31, 2016 and 2017, was approximately \$30.4 million and \$44.7 million, respectively. As of December 31, 2017, we had an accumulated deficit of \$86.9 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 drug candidates, conduct clinical studies 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 capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our product development, other operations or commercialization efforts.

Since our inception, we have invested a significant portion of our efforts and financial resources in research and development activities. Preclinical studies and clinical studies for our drug candidates and additional research and development activities to discover and develop new drug candidates will require substantial funds to complete. As of December 31, 2017, we had capital resources consisting of cash, cash equivalents, and marketable securities of \$91.6 million. In March and April 2018, we received net proceeds of \$59.9 million from the sale and issuance of shares of our Series C convertible preferred stock. We believe that we will continue to expend substantial resources for the foreseeable

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future in connection with the preclinical and clinical development of our lead drug candidates, UBX0101 and UBX1967, and the discovery and development of any other drug candidates we may choose to pursue. These expenditures will include costs associated with conducting preclinical studies and clinical studies, 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 study is highly uncertain, we cannot reasonably estimate the actual amounts necessary to successfully complete the development and commercialization of our lead drug candidates or any future drug candidates.

We expect our existing capital resources, together with the proceeds from the offering will fund our planned operating expenses into 2021. 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 or debt financings or other sources, such as strategic collaborations. Such financing may result in dilution to 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 UBX0101, UBX1967 or any other drug candidates, and conducting preclinical studies and clinical studies, including our planned Phase 1 clinical study of UBX0101, which we expect to initiate in the second quarter of 2018;
- the timing of, and the costs involved in, obtaining regulatory approvals for our lead drug candidates or any future drug candidates;
- the number and characteristics of any additional drug candidates we develop or acquire;
- the timing and amount of any milestone payments we are required to make pursuant to our license agreements;
- the cost of manufacturing our lead drug candidates or any future drug candidates and any products we successfully commercialize;
- the cost of building a sales force in anticipation of product commercialization;
- the cost of commercialization activities if our lead drug candidates or any future drug candidates are approved for sale, including marketing, sales and distribution costs;
- our ability to maintain existing, and establish new, 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, if any.

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 studies or other development activities for our lead drug candidates or any future drug candidate;

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- 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 lead drug candidates or any future drug 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 drug 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 drug candidates are clinically tested, approved for commercialization and successfully marketed. To date, we have primarily financed our operations through the sale of debt and equity securities. We will be required to seek additional funding in the future and currently intend to do so through collaborations, public or private equity offerings or debt financings, credit or loan facilities 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 drug candidates, we must prioritize development of certain drug 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 drug candidates or indications that may be more profitable or for which there is a greater likelihood of success.

We plan to develop a pipeline of drug candidates to treat age-associated diseases and extend human healthspan. We are currently developing multiple senolytic molecules to address a variety of age-associated diseases, including musculoskeletal, ophthalmologic and pulmonary disorders. In addition, we are pursuing other aging mechanisms, such as loss of circulating youth factors and mitochondrial dysfunction, which also have the potential to reduce the damaging effects of age. We seek to maintain a process of prioritization and resource allocation among our programs to maintain a balance between aggressively advancing lead programs in identified indications and exploring additional indications or mechanisms to effect diseases of aging. However, due to the significant resources required for the development of our drug candidates, we must focus on specific diseases and disease pathways and decide which drug candidates to pursue and the amount of resources to allocate to each. Our near-term objective is to demonstrate in our clinical studies that local treatment with senolytic molecules can alter the course of an age-associated disease. To accomplish this goal, we submitted our IND application in March 2018, which was cleared by the FDA in April 2018, and we plan to initiate a Phase 1 clinical study of UBX0101 in osteoarthritic patients in the second quarter of 2018. In addition, we plan to submit our IND application and commence a Phase 1 clinical study of UBX1967 in an ophthalmologic indication in the second half of 2019.

Our decisions concerning the allocation of research, development, collaboration, management and financial resources toward particular drug candidates or therapeutic areas may not lead to the development of any viable commercial product and may divert resources away from better opportunities. Similarly, our potential decisions to delay, terminate or collaborate with third parties in respect of certain 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 drug candidates or misread trends in the aging or healthspan or biopharmaceutical 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 drug 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 drug 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 drug candidates, which may change from time to time;
- the timing and status of enrollment for our clinical studies;
- the cost of manufacturing our drug 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 drug 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 studies for our drug candidates or competing drug 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 drug candidates from regulatory authorities in the United States and internationally;
- coverage and reimbursement policies with respect to our drug candidates, if approved, and potential future drugs that compete with our products; and
- the level of demand for our products, 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 the 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 core therapeutic approach to extending human healthspan is based on our understanding of cellular senescence. Utilizing senolytic molecules to treat age-associated diseases is a novel therapeutic approach, which exposes us to unforeseen risks and makes it difficult to predict the time and cost of drug development and potential for regulatory approval.

We are developing a pipeline of drug candidates to treat age-associated diseases and extend human healthspan. Our foundational science and lead drug candidates are based on senescent biology. We believe that we can develop drug candidates capable of eliminating accumulated senescent cells and the associated Senescence Associated Secretory Phenotype, or SASP, when administered locally, and eventually develop systemic senolytic medicines using multiple modalities. However, this approach to treating age-associated diseases is novel and the scientific research that forms the basis of our efforts to develop senolytic medicines is ongoing. We currently have only limited data, and no conclusive evidence in humans that the accumulation of senescent cells and resulting exposure to SASP factors is the underlying cause of tissue damage and dysfunction associated with many age-associated diseases. Further, we have not yet tested our senolytic molecules in humans and our current data is limited to animal models and preclinical cell lines, the results of which may not translate into humans. As such, there can be no assurances that even if we are able to develop senolytic medicines capable of eliminating senescent cells that such medicines would safely and effectively treat age-associated diseases.

While cellular senescence is a natural occurring biological process, the administration of senolytic medicines to eliminate accumulated senescent cells in humans is untested and may potentially harm healthy tissue or result in unforeseen safety events. We may also ultimately discover that our senolytic molecules do not possess certain properties required for therapeutic effectiveness, or that even if found to be effective in one type of tissue, such molecules are not effective in other tissues. In addition, given the novel nature of this therapeutic approach, designing preclinical and clinical studies to demonstrate the effect of senolytic medicines is complex and exposes us to unforeseen risks. For example, attempts to replicate mouse anterior cruciate ligament, or ACL, transection findings using different animal models of osteoarthritis, or OA, have proven to be challenging, as it is difficult to mimic a disease like OA, which develops over a long period of time in humans, in short-term animal models. A model of OA using the rat medial meniscal-tibial ligament, or MX, transection failed to produce significant senescence, while a recently conducted canine model of OA in which both the ACL and MX were transected produced significantly higher levels of senescence (roughly 10-fold higher than that of the mouse ACL model). In those studies, administration of UBX0101 did not appear to affect either senescence burden or SASP factors. Further, the scientific evidence to support the feasibility of developing systemic senolytic medicines is both preliminary and limited. We may spend substantial funds attempting to develop these drug candidates and never succeed in doing so.

No regulatory authority has granted approval for a senolytic medicine. As such, we believe the FDA has limited experience with biological senescence, which may increase the complexity, uncertainty and length of the regulatory approval process for our drug candidates. We may never receive approval to market and commercialize any drug candidate. Even if we obtain regulatory approval, the approval may be for targets, disease indications or patient populations that are not as broad as we intended or desired or may require labeling that includes significant use or distribution restrictions or safety warnings. We may be required to perform additional or unanticipated clinical studies to obtain approval or be subject to post-marketing testing requirements to maintain regulatory approval. If our senolytic molecules prove to be ineffective, unsafe or commercially unviable, our entire senolytic platform and pipeline would have little, if any, value, which would have a material and adverse effect on our business, financial condition, results of operations and prospects.

Our business is dependent on the successful development, regulatory approval, and commercialization of our drug candidates, all of which are in early stages of development and none of which have been tested in a human subject.

We have no products approved for sale and all of our drug candidates are in early stages of development. Our lead drug candidate, UBX0101, has not yet been evaluated in a clinical study and our other lead drug candidate, UBX1967, has yet to complete IND-enabling studies. Further, we have not yet administered any of our drug candidates in humans and, as such, we face significant translational risk with our drug candidates. The success of our business, including our ability to finance our company and generate any revenue in the future, will primarily depend on the successful development, regulatory approval and commercialization of drug candidates from our senolytic medicine pipeline. However, given our early stage of development, it may be many years, if we succeed at all, before we have demonstrated the safety and efficacy of a drug candidate sufficient to warrant approval for commercialization.

In the future, we may also become dependent on other drug candidates that we may develop or acquire. The clinical and commercial success of our drug candidates and future drug 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 IND-enabling studies and successfully submit IND or comparable applications;
- timely completion of our preclinical studies and clinical studies, 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 FDA or similar foreign regulatory agencies to conduct additional clinical studies or other studies beyond those planned to support the approval and commercialization of our drug candidates or any future drug candidates;
- acceptance of our proposed indications and primary endpoint assessments relating to the proposed indications of our drug 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 lead drug candidates or any future drug candidates;
- the prevalence, duration and severity of potential side effects or other safety issues experienced with our drug 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 lead drug candidates or any future drug candidates or approved products, if any;
- the willingness of physicians, operators of clinics and patients to utilize or adopt any of our future drug candidates to treat age-associated diseases;
- the ability of third parties with whom we contract to manufacture adequate clinical study and commercial supplies of our lead drug candidates or any future drug 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;

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- our ability to successfully develop a commercial strategy and thereafter commercialize our drug candidates or any future drug 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;
- the convenience of our treatment or dosing regimen;
- acceptance by physicians, payors and patients of the benefits, safety and efficacy of our drug candidates or any future drug candidates, if approved, including relative to alternative and competing treatments;
- patient demand for our drug candidates, if approved;
- our ability to establish and enforce intellectual property rights in and to our drug candidates or any future drug 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 drug candidates. Even if regulatory approvals are obtained, we may never be able to successfully commercialize any of our drug candidates. Accordingly, we cannot provide assurances that we will be able to generate sufficient revenue through the sale of our drug candidates or any future drug candidates to continue our business or achieve profitability.

We may be unable to obtain regulatory approval for our drug candidates under applicable regulatory requirements. The denial or delay of any such approval would delay commercialization of our drug candidates and adversely impact our potential to generate revenue, our business and our results of operations.

To gain approval to market our drug candidates, we must provide the FDA and foreign regulatory authorities with clinical data that adequately demonstrate the safety and efficacy of the drug candidate for the intended indication applied for in the applicable regulatory filing. For our senolytic medicines, we must also demonstrate that eliminating senescent cells and the associated SASP will lead to the improvement of well-defined and measurable endpoints. Product development is a long, expensive and uncertain processes, and delay or failure can occur at any stage of any of our clinical development programs. A number of companies in the biotechnology and pharmaceutical industries have suffered significant setbacks in clinical studies, even after promising results in earlier preclinical or clinical studies. These setbacks have been caused by, among other things, preclinical findings made while clinical studies were underway and safety or efficacy observations made in clinical studies, including previously unreported adverse events. Success in preclinical testing and early clinical studies does not ensure that later clinical studies will be successful, and the results of clinical studies by other parties may not be indicative of the results in trials we may conduct.

We have not previously submitted a new drug application, or NDA, or biologics license application, or BLA, to the FDA, or similar approval filings to comparable foreign regulatory authorities. An NDA, BLA or other relevant regulatory filing must include extensive preclinical and clinical data and supporting information to establish that the drug candidate is safe, pure and potent for each desired indication. The NDA, BLA or other relevant regulatory filing must also include significant information regarding the chemistry, manufacturing and controls for the product.

Our IND application for UBX0101 was cleared by the FDA in April 2018, and we plan to conduct IND-enabling studies of UBX1967. The research, testing, manufacturing, labeling, approval, sale,

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marketing and distribution of drug and biologic products are subject to extensive regulation by the FDA and other regulatory authorities in the United States and other countries, and such regulations differ from country to country. We are not permitted to market our drug candidates in the United States or in any foreign countries until they receive the requisite approval from the applicable regulatory authorities of such jurisdictions.

The FDA or any foreign regulatory bodies can delay, limit or deny approval of our drug candidates for many reasons, including:

- our inability to demonstrate to the satisfaction of the FDA or the applicable foreign regulatory body that any of our drug candidates is safe and effective for the requested indication;
- the FDA's or the applicable foreign regulatory agency's disagreement with our trial protocol or the interpretation of data from preclinical studies or clinical studies;
- our inability to demonstrate that the clinical and other benefits of any of our drug candidates outweigh any safety or other perceived risks;
- the FDA's or the applicable foreign regulatory agency's requirement for additional preclinical studies or clinical studies;
- the FDA's or the applicable foreign regulatory agency's non-approval of the formulation, labeling or specifications of UBX0101, UBX1967, or any of our future drug candidates;
- the FDA's or the applicable foreign regulatory agency's failure to approve the manufacturing processes or facilities of third-party manufacturers upon which we rely; or
- the potential for approval policies or regulations of the FDA or the applicable foreign regulatory agencies to significantly change in a manner rendering our clinical data insufficient for approval.

Of the large number of biopharmaceutical and pharmaceutical products in development, only a small percentage successfully complete the FDA or other regulatory approval processes and are commercialized.

Even if we eventually complete clinical testing and receive approval from the FDA or applicable foreign agencies for any of our drug candidates, the FDA or the applicable foreign regulatory agency may grant approval contingent on the performance of costly additional clinical studies which may be required after approval. The FDA or the applicable foreign regulatory agency also may approve our lead drug candidates for a more limited indication or a narrower patient population than we originally requested, and the FDA, or applicable foreign regulatory agency, may not approve our drug candidates with the labeling that we believe is necessary or desirable for the successful commercialization of such drug candidates.

Any delay in obtaining, or inability to obtain, applicable regulatory approval would delay or prevent commercialization of our drug candidates and would materially adversely impact our business and prospects.

Clinical development involves a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results.

Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure or delay can occur at any time during the clinical study process. Success in preclinical studies and early clinical studies does not ensure that later clinical studies will be successful. A number of companies in the biotechnology, and pharmaceutical industries have suffered significant

setbacks in clinical studies, even after positive results in earlier preclinical studies or clinical studies. These setbacks have been caused by, among other things, preclinical findings made while clinical studies were underway and safety or efficacy observations made in clinical studies, including previously unreported adverse events. The results of our preclinical animal studies or studies in *ex vivo* human tissues may not be predictive of the results of outcomes in human clinical studies. For example, our senolytic molecules may demonstrate different chemical and pharmacological properties in patients than they do in laboratory studies or may interact with human biological systems in unforeseen or harmful ways. Drug candidates in later stages of clinical studies may fail to show the desired pharmacological properties or safety and efficacy traits despite having progressed through preclinical studies and initial clinical studies. Notwithstanding any promising results in earlier studies, we cannot be certain that we will not face similar setbacks. Even if we are able to initiate and complete clinical studies, the results may not be sufficient to obtain regulatory approval for our drug candidates.

Although our IND application for UBX0101 was cleared by the FDA in April 2018, and we expect to initiate a Phase 1 clinical study in the second quarter of 2018, we may experience delays in obtaining the FDA's authorization to initiate clinical studies under such IND, completing ongoing studies of our other drug candidates and initiating our planned studies and trials. Additionally, we cannot be certain that studies or trials for our drug candidates will begin on time, not require redesign, enroll an adequate number of subjects on time or be completed on schedule, if at all. Clinical studies can be delayed or terminated for a variety of reasons, including delays or failures related to:

- the FDA or comparable foreign regulatory authorities disagreeing as to the design or implementation of our clinical studies;
- delays in obtaining regulatory approval to commence a trial;
- reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical study sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- obtaining institutional review board, or IRB, approval at each trial site;
- 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 study sites; or
- obtaining sufficient product supply of drug candidate for use in preclinical studies or clinical studies from third-party suppliers.

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

- we may receive feedback from regulatory authorities that requires us to modify the design of our clinical studies;
- clinical studies of our drug candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical studies or abandon drug development programs, including all of our senolytic programs;
- the number of patients required for clinical studies of our drug candidates may be larger than we anticipate, enrollment in these clinical studies may be slower than we anticipate or participants may drop out of these clinical studies at a higher rate than we anticipate;

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- 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 studies of our drug candidates in a timely manner, or at all;
- we or our investigators might have to suspend or terminate clinical studies of our drug candidates for various reasons, including non-compliance with regulatory requirements, a finding that our drug 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 studies of our drug candidates may be greater than we anticipate;
- the quality of our drug candidates or other materials necessary to conduct preclinical studies or clinical studies of our drug candidates may be insufficient or inadequate;
- regulators may revise the requirements for approving our drug candidates, or such requirements may not be as we anticipate; and
- future collaborators may conduct clinical studies in ways they view as advantageous to them but that are suboptimal for us.

If we are required to conduct additional clinical studies or other testing of our drug candidates beyond those that we currently contemplate, if we are unable to successfully complete clinical studies of our drug 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 drug 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 treatment removed from the market after obtaining marketing approval.

We could also encounter delays if a clinical study 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 study due to a number of factors, including failure to conduct the clinical study in accordance with regulatory requirements or our clinical protocols, inspection of the clinical study 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 study.

Further, conducting clinical studies in foreign countries, as we may do for certain of our drug candidates, presents additional risks that may delay completion of our clinical studies. 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, managing additional administrative burdens associated with foreign regulatory schemes, as well as political and economic risks relevant to such foreign countries.

Principal investigators for our clinical studies 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 study site may be questioned and the utility of the clinical study 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 drug candidates.

If we experience delays in the completion, or termination, of any preclinical study or clinical study of our drug candidates, the commercial prospects of our drug candidates may be harmed, and our ability to generate revenues from any of these drug candidates will be delayed or not realized at all. In addition, any delays in completing our clinical studies may increase our costs, slow down our drug candidate development and approval process and jeopardize our ability to commence product sales and generate revenues. Any of these occurrences may significantly harm our business, financial condition and prospects. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical studies may also ultimately lead to the denial of regulatory approval of our drug candidates. If one or more of our drug candidates or our senescence technology generally prove to be ineffective, unsafe or commercially unviable, our entire platform and pipeline would have little, if any, value, which would have a material and adverse effect on our business, financial condition, results of operations and prospects.

We may not be successful in our efforts to continue to create a pipeline of drug candidates or to develop commercially successful products. If we fail to successfully identify and develop additional drug candidates, our commercial opportunity may be limited.

We are committed to developing senolytic medicines that slow, halt or reverse age-associated diseases and are currently advancing multiple senolytic molecules to address a variety of age-associated diseases, including musculoskeletal, ophthalmologic and pulmonary disorders. As senolytic medicines are not limited to intervention by a single mode of action or molecular target, we believe that we can modulate a number of biologic pathways in order to trigger the beneficial elimination of senescent cells. However, our core therapeutic approach is based on our belief that the elimination of the accumulation of senescent cells and their accompanying SASP can treat the root cause of many of the diseases of aging, which may never be successfully validated in a human. In addition, identifying, developing, obtaining regulatory approval and commercializing drug candidates for the treatment of age-associated diseases will require substantial additional funding beyond the net proceeds of this offering and is prone to the risks of failure inherent in drug development. Research programs to identify drug candidates also require substantial technical, financial and human resources, regardless of whether or not any drug candidates are ultimately identified, and even if our research programs initially show promise in identifying potential drug candidates, they may fail to yield drug candidates for clinical development.

In addition, we believe that many age-associated diseases will require the development of systemic senolytic medicines and that the full potential to extend human healthspan will require additional non-senescence based therapeutic approaches. As a result, we intend to continue to dedicate significant resources and effort to better understand fundamental aging mechanisms, such as loss of circulating youth factors and mitochondrial dysfunction, and translate these insights into human medicines. However, the scientific evidence to support the feasibility of developing systemic senolytic medicines is both preliminary and limited and our non-senolytic programs are based on emerging science. We therefore cannot provide any assurance that we will be able to successfully identify or acquire additional drug candidates, advance any of these additional drug candidates through the development process, successfully commercialize any such additional drug candidates, if approved, or

assemble sufficient resources to identify, acquire, develop or, if approved, commercialize additional drug candidates. If we are unable to successfully identify, acquire, develop and commercialize additional drug candidates, our commercial opportunity may be limited.

It may be many years, if ever, before we develop senolytic medicines capable of systemic administration to treat systemic diseases of aging.

We are focusing initially on the development of senolytic molecules for age-associated diseases that can be treated by means of local treatment and intend to continue our research into the development of systemic senolytic medicines. However, we are still at a very early stage of developing locally administered senolytic medicines, and we must establish proof-of-concept in humans for local treatment before developing a systemically administered senolytic medicine. We still face significant risks in the development of localized treatments. As a result, it may be many years before we have sufficient human data and scientific understanding to effectively pursue a systemically administered senolytic medicine, if ever.

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

The timely completion of clinical studies in accordance with their protocols depends, among other things, on 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 studies for a variety of reasons. The enrollment of patients depends on many factors, including:

- the patient eligibility 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 study investigators with the appropriate competencies and experience;
- clinicians' and patients' perceptions as to the potential advantages of the drug 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 studies may compete with other clinical studies for drug candidates that are in the same therapeutic areas as our drug 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. Since the number of qualified clinical investigators is limited, we may conduct some of our clinical studies at the same clinical study sites that some of our competitors use, which will reduce the number of patients who are available for our clinical studies in such clinical study site.

Further, senolytic medicines designed to eliminate senescent cells and associated SASP may result in unforeseen events, including by harming healthy tissues. As a result, it is possible that safety concerns could negatively affect patient enrollment among the patient populations that we intend to treat, including among those in indications with a low risk of mortality. Delays in patient enrollment may result in increased costs or may affect the timing or outcome of the planned clinical studies, which could prevent completion of these trials and adversely affect our ability to advance the development of our drug candidates.

Our drug candidates may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval, limit the commercial profile of an approved label, or result in significant negative consequences following marketing approval, if any.

Undesirable side effects caused by our drug candidates could cause us or regulatory authorities to interrupt, delay or halt clinical studies and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or comparable foreign regulatory authorities. No senolytic medicines designed to eliminate senescent cells and associated SASP have ever been tested in humans. As a result, any clinical studies we initiate could reveal a high and unacceptable severity and prevalence of side effects, and it is possible that patients enrolled in such clinical studies could respond in unexpected ways. For instance, in preclinical *in vivo* animal and *ex vivo* human tissue studies, our senolytic molecules have exhibited clearance of senescent cells, however the elimination of accumulated senescent cells may result in unforeseen events, including by harming healthy cells or tissues. In addition, the entry by cells into a senescent state is a natural biological process that we believe may have protective effects, such as halting the proliferation of damaged cells. The treatment of tissues with senolytic molecules could interfere with such protective processes.

If unacceptable side effects arise in the development of our drug candidates, we, the FDA, the IRBs at the institutions in which our studies are conducted, or the DSMB could suspend or terminate our clinical studies or the FDA or comparable foreign regulatory authorities could order us to cease clinical studies or deny approval of our drug 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 studies 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 drug candidates to understand the side effect profiles for our clinical studies and upon any commercialization of any of our drug candidates. Inadequate training in recognizing or managing the potential side effects of our drug candidates could result in patient injury or death. Any of these occurrences may harm our business, financial condition and prospects significantly.

In addition, even if we successfully advance any of our drug candidates into and through clinical studies, such trials will likely only include a limited number of subjects and limited duration of exposure to our drug candidates. As a result, we cannot be assured that adverse effects of our drug candidates will not be uncovered when a significantly larger number of patients are exposed to the drug candidate. Further, any clinical studies may not be sufficient to determine the effect and safety consequences of taking our drug candidates over a multi-year period.

If any of our drug candidates receives marketing approval, and we or others later identify undesirable side effects caused by such products, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw their approval of the product;
- 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;
- we may be required to implement a Risk Evaluation and Mitigation Strategy, or REMS, or create a Medication Guide outlining the risks of such side effects for distribution to patients;
- we could be sued and held liable for harm caused to patients;

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- the product may become less competitive; and
- our reputation may suffer.

Any of the foregoing events could prevent us from achieving or maintaining market acceptance of the particular drug 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 drug candidates or our senescence approach generally prove to be unsafe, our entire platform and pipeline could be affected, which would have a material and adverse effect on our business, financial condition, results of operations and prospects.

Even if our lead drug candidates or any future drug 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 drug candidates receive FDA or other regulatory approvals, the commercial success of any of our current or future drug candidates will depend significantly on the broad adoption and use of the resulting product by physicians and patients for approved indications. Our drug 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 drug 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 drug 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 drug candidates by physicians and medical staff;
- public misperception regarding the use of our therapies, or public bias against “anti-aging” companies;
- patient satisfaction with the results and administration of our drug candidates and overall treatment experience, including, for example, the convenience of any dosing regimen;
- the cost of treatment with our drug 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 payers, physicians and patients;
- the willingness of patients to pay for certain of our products, if approved;
- 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;

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- 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 drug candidates, if approved, will achieve broad market acceptance among physicians and patients. Any failure by our drug candidates that obtain regulatory approval to achieve market acceptance or commercial success would adversely affect our results of operations.

We rely on third-party suppliers to manufacture preclinical supplies of our drug candidates and we intend to rely on third parties to produce clinical supplies as well as 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 drug candidates or the materials necessary to produce our drug candidates for use in the conduct of our preclinical studies or clinical studies, and we lack the internal resources and the capability to manufacture any of our drug candidates on a preclinical, clinical or commercial scale. The facilities used by our contract manufacturers to manufacture our drug 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 process 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 drug 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 drug 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 drug candidates.

We currently intend to supply all of our drug 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 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. As a result, the supply chain for the manufacturing of our drug candidates is complicated and we expect the logistical challenges associated with our supply chain to grow more complex as our drug candidates, such as UBX0101, commence any clinical studies.

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 a preclinical study and we do not intend to initiate any clinical studies unless we believe we have access to a sufficient supply of a drug candidate to complete such study or trial. In addition, any significant delay in, or quality control problems with

respect to, the supply of a drug candidate, or the raw material components thereof, for an ongoing study or trial could considerably delay completion of our preclinical studies or future clinical studies, product testing and potential regulatory approval of our drug candidates.

We have not yet engaged any manufacturers for the commercial supply of our drug candidates. Although we intend to enter into such agreements prior to commercial launch of any of our drug 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 drug candidates, we will have no other means of producing our lead drug 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 drug candidates on a timely basis.

In addition, to manufacture our lead drug candidates in the quantities that we believe would be required to meet anticipated market demand, our third-party manufacturers would likely need to increase manufacturing capacity and, in some cases, we plan 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 drug candidates on acceptable terms, at sufficient quality levels, or in adequate quantities, if at all, the commercial launch of our lead drug candidates or any future drug 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 drug candidates, if approved.

We depend on third-party suppliers for key raw materials used in our manufacturing processes, and the loss of these third-party suppliers or their inability to supply us with adequate raw materials could harm our business.

We rely on third-party suppliers for the raw materials required for the production of our drug candidates. Our dependence on these third-party suppliers and the challenges we may face in obtaining adequate supplies of raw materials involve several risks, including limited control over pricing, availability, quality and delivery schedules. As a small company, our negotiation leverage is limited and we are likely to get lower priority than our competitors who are larger than we are. We cannot be certain that our suppliers will continue to provide us with the quantities of these raw materials that we require or satisfy our anticipated specifications and quality requirements. Any supply interruption in limited or sole sourced raw materials could materially harm our ability to manufacture our drug candidates until a new source of supply, if any, could be identified and qualified. We may be unable to find a sufficient alternative supply channel in a reasonable time or on commercially reasonable terms. Any performance failure on the part of our suppliers could delay the development and potential commercialization of our drug candidates, including limiting supplies necessary for clinical studies and regulatory approvals, which would have a material adverse effect on our business.

We rely on third parties in the conduct of all of our preclinical studies and intend to rely on third parties in the conduct of all of our future clinical studies. 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 drug candidates.

We currently do not have the ability to independently conduct preclinical studies that comply with the regulatory requirements known as good laboratory practice, or GLP, requirements. We also do not currently have the ability to independently conduct any clinical studies. The FDA and regulatory authorities in other jurisdictions require us to comply with regulations and standards, commonly referred to as good clinical practice, or GCP, requirements for conducting, monitoring, recording and reporting the results of clinical studies, 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 studies. 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 studies on our drug 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 studies play a significant role in the conduct of these studies and trials 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 studies, we remain responsible for ensuring that each of our GLP preclinical studies and clinical studies 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 studies or other drug development activities that could harm our competitive position. If the third parties conducting our preclinical studies or our clinical studies 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 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 studies 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 drug candidate, our financial results and the commercial prospects for our drug candidates would be harmed, our costs could increase, and our ability to generate revenues could be delayed.

We face significant competition in an environment of rapid technological and scientific change, and our drug candidates, if approved, will face significant competition and our failure to effectively compete 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 biotechnology and pharmaceutical 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

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from a number of sources, such as pharmaceutical companies, generic drug companies, biotechnology companies and academic and research institutions, many of which have greater financial resources, marketing capabilities, sales forces, manufacturing capabilities, research and development capabilities, clinical study expertise, intellectual property portfolios, experience in obtaining patents and regulatory approvals for drug candidates and other resources than we do. Some of the companies that offer competing products 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 industry 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 study sites and patient registration for clinical studies, as well as in acquiring technologies complementary to, or necessary for, our programs. In addition, certain of our drug candidates, if approved, may compete with other products that treat age-associated diseases, including over-the-counter, or OTC, treatments, for a share of some patients' discretionary budgets and for physicians' attention within their clinical practices.

We are aware of other companies seeking to develop treatments to prevent or treat aging-related diseases through various biological pathways, including Calico and reSTORbio. Calico has not yet disclosed any pipeline candidates or mechanisms of interest, and reSTORbio is developing candidates targeting TORC1. Within our three senolytic programs, our drug candidates would compete against current therapies from a wide range of companies and technologies, including:

- symptom management approaches for musculoskeletal diseases, including anti-inflammatory drugs, such as Ibuprofen, Diclofenac and Celecoxib, analgesic pain relief, such as Acetaminophen, and narcotic pain relief, such as Tramadol;
- potentially disease modifying therapeutics for ophthalmology disease that are currently being developed and sold by several large and specialty pharmaceutical and biotechnology companies, including Roche/Genentech and Regeneron; and
- potentially disease modifying therapeutics for pulmonary disease that are currently being developed by several large and specialty pharmaceutical and biotechnology companies and academic institutions, including Genentech, Boehringer-Ingelheim, Cytokinetics and Mallinckrodt, and are in various stages of clinical studies.

Further, we believe that potential competitors may be able to develop senolytic medicines utilizing well-established molecules and pathways, which could enable the development of competitive drug candidates utilizing the same cellular senescent biological theories.

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 treatment of age-associated diseases generally, which could give such products significant regulatory and market timing advantages over any of our drug candidates. Our competitors also may obtain FDA, 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 drug candidates are targeting, which could result in our competitors establishing a strong market position before we are able to enter the market. Newly developed systemic or non-systemic treatments that replace existing therapies that are currently only utilized in patients suffering from severe disease may also have lessened side effects or reduced prices compared to current therapies, which make them more attractive for patients suffering from mild to moderate disease. Even if a generic product or an OTC product is less effective than our drug candidates, a less

effective generic or OTC product may be more quickly adopted by physicians and patients than our competing drug candidates based upon cost or convenience. For additional information regarding our competition, see the section of this prospectus captioned “Business—Competition.”

The successful commercialization of our drug 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 drug 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 drug candidates, assuming FDA approval. 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 drug candidates. Assuming we obtain coverage for our drug 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 EU or elsewhere will be available for our drug 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 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 drug 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 drug candidates, pricing of existing third-party therapeutics may limit the amount we will be able to charge for our drug 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 drug candidates. If reimbursement is not available or is available only at limited levels, we may not be able to successfully commercialize our drug candidates, and may not be able to obtain a satisfactory financial return on our investment in the development of drug 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 drug 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 drug 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 countries have and will continue to put pressure on the pricing and usage of our drug 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 amount that we are able to charge for our drug candidates. Accordingly, in markets outside the United States, the reimbursement for our drug 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 drug candidates. We expect to experience pricing pressures in connection with the sale of our drug 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 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 drug candidates effectively in the United States and foreign jurisdictions, if approved, or generate product revenue.

We currently do not have a marketing or sales organization. In order to commercialize our drug 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 drug candidates receive regulatory approval, we expect to establish a sales organization with technical expertise and supporting distribution capabilities to commercialize each such drug candidate, which will be expensive and time consuming. We have no prior experience in the marketing, sale and distribution of pharmaceutical 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 drug candidates. If we are not successful in commercializing our drug candidates or any future drug 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 December 31, 2017, we had 67 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 studies, continue our development activities and commercialize our lead drug candidates or any future

drug 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 studies 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, we may be unable to successfully develop our lead drug candidates or any future drug candidates, conduct our clinical studies and commercialize our current or any future drug candidates.

Our success depends in part on our continued ability to attract, retain and motivate highly qualified management, clinical and scientific personnel. We are highly dependent upon our senior management, particularly our President, Nathaniel E. David, and our Chief Executive Officer, Keith R. Leonard, 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 studies or the commercialization of our lead drug candidates or any future drug candidates.

Competition for qualified personnel in the biotechnology and pharmaceuticals 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 drug candidates.

We face an inherent risk of product liability as a result of the clinical testing of our drug 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 a 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 drug 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 drug candidates;
- injury to our reputation;
- withdrawal of clinical study participants;
- costs to defend the related litigation;

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- a 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 drug candidates.

Our inability to obtain and maintain sufficient product liability insurance at an acceptable cost and scope of coverage to protect against potential product liability claims could prevent or inhibit the commercialization of our current or any future drug candidates we develop. We currently carry product liability insurance covering our clinical studies. 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 drug candidates, we intend to expand our insurance coverage to include the sale of such drug candidate; however, we may be unable to obtain this liability insurance on commercially reasonable terms or at all.

Our existing collaborations as well as additional 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 drug candidates.

We utilize external collaborations and currently maintain more than a dozen active early-stage research and discovery focused collaborations. In the future, we may seek additional collaboration arrangements for the commercialization, or potentially for the development, of certain of our drug candidates depending on the merits of retaining commercialization rights for ourselves as compared to entering into collaboration arrangements. To the extent that we decide to enter into additional collaboration agreements in the future, we may face significant competition in seeking 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 prudently manage our existing collaborations or to enter new ones should we chose to do so. The terms of new 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 drug candidates or may elect not to continue or renew development or commercialization programs based on clinical study 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;

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- collaborators may delay clinical studies, provide insufficient funding for a clinical study program, stop a clinical study, abandon a drug candidate, repeat or conduct new clinical studies or require a new formulation of a drug candidate for clinical testing;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products or drug candidates;
- a collaborator 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 a collaborator that cause the delay or termination of the research, development or commercialization of our current or future drug 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 drug candidates;
- collaborators may own or co-own intellectual property covering products that results 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
- a collaborator's 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 results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. Furthermore, the market for products with the potential to treat age-associated diseases, particularly those affecting large populations, may be particularly vulnerable to unfavorable economic conditions. 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 lead drug candidates or any future drug 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 services. Any of the foregoing could harm our business 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 in the past has experienced both severe earthquakes and wildfires. We do not carry earthquake insurance. Earthquakes, wildfires or other natural disasters could severely disrupt our operations, and have a material adverse effect on our business, results of operations, financial condition 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, such as our enterprise financial systems or manufacturing resource planning and enterprise quality systems, 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 or breaches of data security could materially adversely affect our business, results of operations and financial condition.

We collect and maintain information in digital form 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 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 our current and any future collaborators, contractors and consultants and other third parties on which we rely, are vulnerable to damage from computer viruses, malware, natural disasters, terrorism, war, telecommunication and electrical failures, cyber-attacks or cyber-intrusions over the Internet, 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 data security breaches, which could lead to the loss of confidential information or other intellectual property. The costs to us to mitigate 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 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 study data from completed or ongoing or planned clinical studies could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. Moreover, if a computer security breach affects our systems or results in the unauthorized release of personally identifiable information, our reputation could be materially damaged. In addition, such a breach may require notification to governmental agencies, the media or individuals pursuant to various federal and state privacy and security laws, if applicable, including the Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Clinical Health Act of 2009, and its implementing rules and regulations, as well as regulations promulgated by the Federal Trade Commission and state breach notification laws. We would also be exposed to a risk of loss or litigation and potential liability, which could materially adversely affect our business, results of operations and financial condition.

Our employees and independent contractors, including principal investigators, consultants, 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 studies, the creation of fraudulent data in our preclinical studies or clinical studies, 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 be in compliance 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, individual imprisonment, other sanctions, 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 and drug candidates and other hazardous compounds. We and any third-party manufacturers and suppliers we engage 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, 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.

Although we believe that the safety procedures utilized by our third-party manufacturers for handling and disposing of these materials generally comply with the standards prescribed by these laws and regulations, we cannot guarantee that this is the case or 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 these 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 studies 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 senolytic medicine platform and any future products that we commercialize 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 senolytic medicines and future drug candidates and 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 biopharmaceutical and pharmaceutical 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), and the court could prohibit us 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, 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 at all or may require substantial monetary expenditures and time, during which our products may not be available for manufacture, use, or sale.

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. Thus, 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 products 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, to determine priority of invention in the United States. The costs of patent 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 inventions.

From time to time, we may be subject to legal proceedings and claims in the ordinary course of business with respect to intellectual property. Although we are not currently subject to any claims from third parties asserting infringement of their intellectual property rights, in the future, 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 because they have substantially greater resources. 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. Finally, 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 senolytic medicine platform 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 products 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 be advantageous to us. The United States Patent and Trademark Office, or the 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 commercial 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 our legal actions 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 specific protection and/or may not prove to be enforceable in actions against specific alleged infringers.

The market for biopharmaceuticals, pharmaceuticals and treatments for age-associated diseases 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 products for use in these fields and upon our ability to obtain, maintain and enforce our intellectual property rights in connection therewith. 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 our 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 ours 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 one of our current or future collaborators were to initiate legal proceedings against a third party to enforce a patent covering one of our lead drug candidates or future drug 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 lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. 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 the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant 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 drug 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 product 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 proposed commercial technologies or the future products that we develop. We may not have freedom to commercialize unimpeded by the patent rights of others. Third parties may have dominating, blocking, or other patents relevant to our technology of which we are not aware. There may be prior public disclosures or 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, policy 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 our patents, our ability to obtain patents or the patents and patent applications of our licensors.

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 United States Patent and Trademark Office recently developed new 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.

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 prospects could be substantially harmed. Varying filing dates in international countries may also permit intervening third parties to allege priority to certain technology.

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 drug 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. While we have confidence in these individuals, organizations and 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 may in the future 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 that incorporate our product or service features, which could reduce demand for our products. In addition, we may need to defend our patents from third-party challenges, such as (but not limited to) 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 harm our business, 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. 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 (such as litigation) costs.

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, either 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 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, 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. 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 drug candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as 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 further, 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 our products 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 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 by potential partners or customers 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 were not successful in challenging such third-party rights, we may not be able to use these trademarks to market our 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 marketing abilities may be impacted.

If we are unable to protect the confidentiality of our proprietary information and know-how, the value of our technology and products could be adversely affected.

We may not be able to protect our proprietary information and technology adequately. Although we use reasonable efforts to protect our proprietary information, technology, and know-how, our

employees, consultants, contractors and outside scientific advisors may unintentionally or willfully disclose our information to competitors. Enforcing a claim that a third party illegally obtained and is using any of our proprietary information, technology or know-how is expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States are sometimes less willing to protect proprietary information, technology, and know-how. We rely, in part, on non-disclosure and confidentiality agreements with our employees, consultants and other parties to protect our proprietary information, technology, and know-how. These agreements may be breached and we may not have adequate remedies for any breach. Moreover, others may independently develop similar or equivalent proprietary information, and third parties may otherwise gain access to our proprietary knowledge.

Risks Related to Government Regulation

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

If our drug 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 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. As such, we may not promote our 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 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, 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 studies;

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- 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 drug 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.

If any of our small molecule drug candidates obtain 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 any of our small molecule drug candidates, such as UBX0101 or UBX1967, are 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.

Any biologic, or large molecule, drug candidates for which we intend to seek approval may face competition sooner than anticipated.

If we are successful in achieving regulatory approval to commercialize any biologic drug candidate faster than our competitors, such drug candidates may face competition from biosimilar products. In the United States, our large molecule drug candidates are regulated by the FDA as biologic products subject to approval under the biologics license application, or BLA, pathway. The Biologics Price Competition and Innovation Act of 2009, or BPCIA, creates an abbreviated pathway for the approval of biosimilar and interchangeable biologic products following the approval of an original BLA. The abbreviated regulatory pathway establishes legal authority for the FDA to review and approve biosimilar biologics, including the possible designation of a biosimilar as “interchangeable” based on its similarity to an existing brand product. Under the BPCIA, an application for a biosimilar product cannot be approved by the FDA until 12 years after the original branded product was approved under a BLA. 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.

Moreover, the extent to which a biosimilar product, once approved, will be substituted for any one of our reference products in a way that is similar to traditional generic substitution for non-biologic products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing. In addition, a competitor could decide to forego the biosimilar approval path and submit a full BLA after completing its own preclinical studies and clinical studies. In such cases, any exclusivity to which we may be eligible under the BPCIA would not prevent the competitor from marketing its product as soon as it is approved.

If competitors are able to obtain marketing approval for biosimilars referencing our large molecule drug candidates, if approved, such products may become subject to competition from such biosimilars, with the attendant competitive pressure and potential adverse consequences. Such competitive products may be able to immediately compete with us in each indication for which our drug candidates may have received approval.

We may seek orphan drug designation for certain future drug candidates, but we may be unable to obtain such designations or to maintain the benefits associated with orphan drug designation, including market exclusivity, which may cause our revenue, if any, to be reduced.

We may pursue orphan drug designation for certain of our future drug candidates. 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. 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 study costs, tax advantages, and application fee waivers. 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 for the orphan patient population. 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 not to 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 drug 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 or EMA can subsequently approve the same drug with the same active moiety for the same condition if the FDA or EMA 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.

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

In the United States, the EU 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 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 50% 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 new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research;
- creation of the Independent Payment Advisory Board, which, once empaneled, will have the authority to recommend certain changes to the Medicare program that could result in reduced payments for prescription drugs and those recommendations could have the effect of law unless overruled by a supermajority vote of Congress; and
- establishment of a Center for Medicare 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 and Congressional 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. The current presidential administration and Congress will likely continue to seek to modify, repeal, or otherwise invalidate all, or certain provisions of, the Affordable Care Act. It is uncertain the extent to which any such changes may impact our business or financial condition.

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 2025 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.

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 harm our business, results of operations, financial condition 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 drug candidates or put pressure on our product pricing. 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.

In the EU, similar political, economic and regulatory developments may affect our ability to profitably commercialize our drug candidates, if approved. In addition to continuing pressure on prices and cost containment measures, legislative developments at the EU or member state level may result in significant additional requirements or obstacles that may increase our operating costs. The delivery of healthcare in the EU, 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 drug candidates, restrict or regulate post-approval activities and affect our ability to commercialize our drug 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 action in the United States, the EU 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 drug candidates may lose any regulatory approval that may have been obtained and we may not achieve or sustain profitability.

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 drug candidates, if approved. Such laws include:

- the U.S. federal 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 and civil monetary penalties laws, including the civil False Claims Act, which, among other things, impose criminal and civil penalties, including through civil whistleblower or qui tam actions, 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;
- the U.S. federal Health Insurance Portability and Accountability Act of 1996, or 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 Health Information Technology for Economic and Clinical Health Act of 2009 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 subject to the rule, 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;
- the FDCA, which prohibits, among other things, the adulteration or misbranding of drugs, biologics and medical devices;
- the U.S. Public Health Service Act, which prohibits, among other things, the introduction into interstate commerce of a biological product unless a biologics license is in effect for that product;
- 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 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 and security of 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; and

- similar healthcare laws and regulations in the EU and other jurisdictions, including reporting requirements detailing interactions with and payments to healthcare providers.

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 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, individual imprisonment, contractual damages, reputational harm, diminished profits and the curtailment or restructuring of our operations. Further, defending against any such actions can be costly, time-consuming and may require significant personnel resources. Therefore, even if we are successful in defending against any such actions that may be brought against us, our business may be impaired.

Recent U.S. tax legislation and future changes to applicable U.S. tax laws and regulations may have a material adverse effect on our business, financial condition and results of operations.

Changes in laws and policy relating to taxes may have an adverse effect on our business, financial condition and results of operations. 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.

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 studies for our lead drug candidates, or any other future clinical development programs;
- announcements by academic or other third parties challenging the fundamental premises underlying our approach to treating age-associated diseases and/or drug development;

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- announcements of regulatory approval or disapproval of our current or any future drug candidates;
- failure or discontinuation of any of our research and development programs;
- announcements relating to future licensing, collaboration, or development agreements;
- delays in the commercialization of our current or any future drug candidates;
- public misperception regarding the use of our therapies, or public bias of against “anti-aging” companies;
- acquisitions and sales of new products, technologies, or businesses;
- manufacturing and supply issues related to our drug candidates for clinical studies or future drug candidates for commercialization;
- quarterly variations in our results of operations or those of our future competitors;
- changes in earnings estimates or recommendations by securities analysts;
- announcements by us or our competitors of new products, 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, including our ability to meet our future revenue and operating profit or loss estimates or guidance;
- any major changes in our board of directors or management;
- new legislation 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 drug 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. In the past, when the market price of a stock has been volatile, holders of that stock have sometimes instituted securities class action litigation against the issuer. If any of our stockholders were to bring such a lawsuit against us, we could incur substantial costs defending the lawsuit and the attention of our management would be diverted from the operation of our business.

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 businesses, applications, 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 studies 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 year following the fifth anniversary of the consummation of this offering, (2) the last day of the year in which we have total annual gross revenue of at least \$1.07 billion, (3) the last day of the 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 (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 would harm our business.

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 Global Select Market 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 of The Sarbanes-Oxley Act of 2002, or 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 controls over financial reporting.

To date, we have never conducted a review of our internal control for the purpose of providing the reports required by these rules. 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 have a material weakness in our internal controls over financial reporting, 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 harm our operating results, 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 Select Market or other adverse consequences that would materially harm to our business.

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 \$11.59 per share, based on an assumed initial public offering price of \$17.00 per share, the midpoint of the estimated price range set forth on the cover of this prospectus, and our pro forma net tangible book value as of December 31, 2017. In addition, following this offering, purchasers in this offering will have contributed approximately 27.7% of the total gross consideration paid by stockholders to us to purchase shares of our common stock, through December 31, 2017, but will own only approximately 11.9% 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 and warrants 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 April 11, 2018, our executive officers, directors, holders of 5% or more of our capital stock and their respective affiliates beneficially owned approximately 42.7% of our voting stock and, upon the closing of this offering, that same group will hold approximately 38.0% 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 December 31, 2017 (including the Series C convertible preferred stock issued in March and April 2018), upon the closing of this offering, we will have outstanding a total of 41,903,538 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 December 31, 2017 (including the Series C convertible preferred stock issued in March and April 2018), after the lock-up agreements expire, up to approximately 36.9 million additional shares of common stock will be eligible for sale in the public market, approximately 14.2 million of which shares are held by directors, executive officers and other affiliates and will be subject to Rule 144 under the Securities Act. Goldman Sachs & Co. LLC, Morgan Stanley & Co. LLC and Citigroup Global Markets Inc. 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 December 31, 2017, approximately 4.4 million 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.

Based upon the number of shares outstanding as of December 31, 2017 (including the Series C convertible preferred stock issued in March and April 2018), after this offering, the holders of approximately 32.1 million shares of our common stock, or approximately 77% 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 vesting schedules and 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 substantially all of the net proceeds of this offering to fund our planned clinical development of UBX0101, our planned IND-enabling studies and Phase 1 clinical study of UBX1967, internal research and development activities and for working capital and 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.

We have incurred substantial losses during our history and do not expect to become profitable in the near future, and we may never achieve profitability. To the extent that we continue to generate taxable losses, unused losses will carry forward to offset a portion of future taxable income, if any, until such unused losses expire, if ever. 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 in the future as a result of this offering and/or subsequent shifts in our stock ownership (some of which shifts are outside our control). As a result, if we earn net taxable

income, our ability to use our pre-change NOLs to offset such taxable income 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 other tax attributes.

Additionally, the Tax Act, which was enacted on December 22, 2017, significantly reforms the Code, including changes to the rules governing net operating loss carryforwards. For net operating loss carryforwards arising in tax years beginning after December 31, 2017, the Tax Act limits a taxpayer's ability to utilize such carryforwards to 80% of taxable income. In addition, net operating loss carryforwards arising in tax years ending after December 31, 2017 can be carried forward indefinitely, but carryback is generally prohibited. Net operating loss carryforwards generated by us before January 1, 2018 will not be subject to the taxable income limitation and will continue to have a twenty-year carryforward period. However, the changes in the carryforward and carryback periods as well as the new limitation on use of net operating losses may significantly impact our ability to use net operating loss carryforwards generated after December 31, 2017, as well as the timing of any such use, and could adversely affect our results of operations.

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 that will be in effect immediately prior to the consummation 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 created by the expansion of the board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- 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 preferences and voting rights, 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 chief executive officer or the president or 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."

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.
- 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 substantially all 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 is the exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a 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, any action to interpret, apply, enforce, or determine the validity of our amended and restated certificate of incorporation or amended and restated bylaws, or any action asserting a claim against us that is governed by the internal affairs doctrine. The 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 our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and other employees. Alternatively, 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.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements concerning our business, operations and financial performance and condition, as well as our plans, objectives and expectations for our business operations and financial performance and condition. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “aim,” “anticipate,” “assume,” “believe,” “contemplate,” “continue,” “could,” “due,” “estimate,” “expect,” “goal,” “intend,” “may,” “objective,” “plan,” “predict,” “potential,” “positioned,” “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 benefits, activity, effectiveness and safety of our drug candidates;
- 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;
- our preclinical, clinical and regulatory development plans for our drug candidates, including the timing or likelihood of regulatory filings and approvals for our drug candidates;
- our expectations with regard to our ability to acquire, discover and develop additional drug candidates and advance such drug candidates into, and successfully complete, clinical studies;
- our expectations regarding the potential market size and size of the potential patient populations for our drug candidates, if approved for commercial use;
- our intentions and our ability to establish collaborations and/or partnerships;
- the timing and amount of any milestone payments we are obligated to make pursuant to our existing license agreements and any future license or collaboration agreements that we may enter into;
- our commercialization, marketing, and manufacturing capabilities and expectations;
- our intentions with respect to the commercialization of our drug candidates;
- the pricing and reimbursement of our drug candidates, if approved;
- the implementation of our business model and strategic plans for our business and drug 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 drug 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;
- developments and projections relating to our competitors and our industry, including competing therapies; and
- other risks and uncertainties, including those listed under the caption “Risk Factors.”

These forward-looking statements are based on management’s current expectations, estimates, forecasts and projections about our business and the industry in which we operate and management’s

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beliefs and assumptions and are not guarantees of future performance or development and involve known and unknown risks, uncertainties and other factors that are in some cases beyond our control. As a result, any or all of our forward-looking statements in this prospectus may turn out to be inaccurate. Factors that may cause actual results to differ materially from current expectations include, among other things, those listed under “Risk Factors” and elsewhere in this prospectus. Potential investors are urged to consider these factors carefully in evaluating the forward-looking statements. These forward-looking statements speak only as of the date of this prospectus. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future. You should, however, review the factors and risks we describe in the reports we will file from time to time with the SEC after the date of this prospectus. See “Where You Can Find More Information.”

INDUSTRY AND MARKET DATA

This prospectus contains estimates, projections and other information concerning our industry, our business, and the markets for our drug candidates, including data regarding the estimated patient population and market size for our drug candidates, 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. 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 from the sale of 5,000,000 shares of common stock in this offering will be approximately \$76.1 million at an assumed initial public offering price of \$17.00 per share (the midpoint of the estimated price range set forth on the cover of this prospectus), after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise their option to purchase an additional 750,000 shares from us in full, we estimate that net proceeds will be approximately \$87.9 million at an assumed initial public offering price of \$17.00 per share (the midpoint of the estimated price range set forth on the cover of this prospectus) after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Each \$1.00 increase (decrease) in the assumed initial public offering price of \$17.00 per share (the midpoint of the estimated price range set forth on the cover of this prospectus) would increase (decrease) the net proceeds to us from this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, by approximately \$4.7 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. We may also increase or decrease the number of shares we are offering. An increase (decrease) of 1,000,000 in the number of shares we are offering would increase (decrease) the net proceeds to us from this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, by approximately \$15.8 million, assuming the assumed initial public offering price stays the same. The pro forma as adjusted information is illustrative only, and we will adjust this information based on the actual initial public offering price and other terms of this offering determined at pricing.

We intend to use the net proceeds from this offering together with our cash, cash equivalents and marketable securities on hand as follows:

- approximately \$10.0 million to \$20.0 million to fund our planned Phase 1 clinical study and subsequent clinical development of UBX0101;
- approximately \$15.0 million to \$25.0 million to fund our planned IND-enabling studies and Phase 1 clinical study of UBX1967 in an ophthalmologic indication;
- approximately \$30.0 million to \$50.0 million to advance our research and development efforts, including conducting additional preclinical and IND-enabling studies, as well as an additional Phase 1 clinical study, in our other senolytic pipeline programs and advancing our programs targeting other aging mechanisms; and
- any remaining proceeds for working capital and general corporate purposes.

We estimate that our current cash, cash equivalents and marketable securities will be sufficient for us to fund our operating expenses and capital expenditure requirements through at least the next 12 months. We expect our existing capital resources together with the proceeds from this offering will fund our planned operating expenses into 2021, including through clinical data readout from our Phase 1 clinical study of UBX0101 and data readouts from two additional Phase 1 clinical studies of our lead programs for ophthalmologic and/or pulmonary disorders.

This expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering or the amounts that we will actually spend on the uses set forth above.

The amounts and timing of our actual expenditures and the extent of our research and development activities may vary significantly depending on numerous factors, including the progress of

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our development efforts, the status of and results from any pre-clinical or clinical studies we may commence in the future, our ability to take advantage of expedited programs or to obtain regulatory approval for any other drug candidates we may identify and pursue, the timing and costs associated with the manufacture and supply of any other drug candidates we may identify and pursue for clinical development or commercialization, and any unforeseen cash needs. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering.

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in interest-bearing, investment-grade instruments and government securities.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We intend to retain all available funds and any future earnings, if any, to fund the development and expansion of our business and we do not anticipate paying any cash dividends in the foreseeable future. Any future determination related to dividend policy will be made at the discretion of our board of directors.

CAPITALIZATION

The following table sets forth our cash, cash equivalents, and marketable securities and capitalization as of December 31, 2017:

- on an actual basis;
- on a pro forma basis to give effect to: (i) the sale and issuance in March and April 2018 of 3,913,425 shares of our Series C convertible preferred stock at \$15.3317 per share for net proceeds of \$59.9 million, (ii) the conversion of all shares of our outstanding Series A-1, Series A-2, Series B, and Series C convertible preferred stock into an aggregate of 32,073,149 shares of common stock immediately prior to the consummation of this offering; and (iii) the filing and effectiveness of our amended and restated certificate of incorporation, which will occur immediately prior to the consummation of this offering; and
- on a pro forma as adjusted basis to give further effect to the sale of 5,000,000 shares of common stock in this offering at an assumed initial public offering price of \$17.00 per share (the midpoint of the estimated price range set forth on the cover of this prospectus), after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

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You should read this information together with our audited financial statements and related notes appearing elsewhere in this prospectus and the information set forth under the headings “Selected Financial Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

	As of December 31, 2017		
	Actual	Pro Forma	Pro Forma As Adjusted ⁽¹⁾
	(In thousands, except share and per share amounts)		
Cash, cash equivalents, and marketable securities	\$ 91,628	\$ 151,508	\$ 227,558
Convertible preferred stock, \$0.0001 par value—91,739,149 shares authorized; 28,159,724 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma or pro forma as adjusted	\$ 173,956	\$ —	\$ —
Stockholders' (deficit) equity:			
Common stock, \$0.0001 par value—122,000,000 shares authorized; 4,830,389 shares issued and outstanding, actual; 300,000,000 shares authorized, pro forma and pro forma as adjusted; 36,903,538 shares issued and outstanding, pro forma; 41,903,538 shares issued and outstanding, pro forma as adjusted	1	4	5
Preferred stock, \$0.0001 par value—no shares authorized, issued and outstanding, actual; 10,000,000 shares authorized, pro forma and pro forma as adjusted; no shares issued and outstanding, pro forma and pro forma as adjusted	—	—	—
Additional paid-in capital	4,072	237,905	313,954
Related party promissory notes for purchase of common stock	(202)	(202)	(202)
Accumulated other comprehensive loss	(104)	(104)	(104)
Accumulated deficit	(86,880)	(86,880)	(86,880)
Total stockholders' (deficit) equity	(83,113)	150,723	226,773
Total capitalization	\$ 90,843	\$ 150,723	\$ 226,773

- (1) A \$1.00 increase (decrease) in the assumed initial public offering price of \$17.00 per share (the midpoint of the estimated price range set forth on the cover of this prospectus) would increase (decrease) the amount of cash, cash-equivalents, and marketable securities, additional paid-in capital, total stockholders' (deficit) equity and total capitalization by approximately \$4.7 million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1,000,000 in the number of shares offered by us would increase (decrease) cash, cash-equivalents, and marketable securities, additional paid-in capital, total stockholders' (deficit) equity and total capitalization by approximately \$15.8 million, assuming the assumed initial public offering price of \$17.00 per share (the midpoint of the estimated price range set forth on the cover of this prospectus) remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. The pro forma as adjusted information discussed above is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering determined at pricing.

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The number of shares of common stock issued and outstanding actual, pro forma and pro forma as adjusted in the table above excludes the following:

- 4,365,694 shares of our common stock issuable upon the exercise of stock options to purchase common stock that were outstanding as of December 31, 2017, with a weighted average exercise price of \$3.07 per share;
- 918,595 shares of our common stock reserved for issuance pursuant to future awards under our 2013 Equity Incentive Plan, or the Plan, and associated amendments as of December 31, 2017;
- 96,610 shares of our common stock issuable upon the exercise of an outstanding warrant with an exercise price of \$0.18 per share;
- 763,501 shares of our common stock issuable upon the exercise of outstanding convertible preferred stock warrants with a weighted-average exercise price of \$0.65 per share;
- 739,551 shares of our common stock that we may be obligated to issue under our license agreements;
- 4,289,936 shares of common stock reserved for issuance pursuant to future awards under our 2018 Equity Incentive Award Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective immediately prior to the consummation of this offering; and
- 536,242 shares of common stock reserved for issuance pursuant to future awards under our Employee Stock Purchase Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective immediately prior to the consummation of this offering.

DILUTION

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

As of December 31, 2017, we had a historical net tangible book value (deficit) of \$(83.1) million, or \$(17.21) per share of common stock. Our net tangible book value (deficit) represents total tangible assets less total liabilities and convertible preferred stock all divided by the number of shares of common stock outstanding on December 31, 2017. Our pro forma net tangible book value as of December 31, 2017, before giving effect to this offering, was \$150.7 million, or \$4.08 per share of our common stock. Pro forma net tangible book value, before the issuance and sale of shares in this offering, gives effect to:

- the conversion of all shares of our outstanding Series A-1, Series A-2, and Series B, convertible preferred stock as of December 31, 2017 and the conversion of all shares of our Series C convertible preferred stock issued in March and April 2018 into an aggregate of 32,073,149 shares of common stock immediately prior to the consummation of this offering; and
- the filing and effectiveness of our amended and restated certificate of incorporation, which will occur immediately prior to the consummation of this offering.

Net tangible book value dilution per share to new investors represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the pro forma as adjusted net tangible book value per share of common stock immediately after completion of this offering. After giving effect to the sale of shares of common stock in this offering at an assumed initial public offering price of \$17.00 per share (the midpoint of the estimated price range set forth on the cover of this prospectus) and after deducting the estimated underwriting discounts and commissions and estimated offering expenses, our pro forma as adjusted net tangible book value as of December 31, 2017 would have been approximately \$226.8 million, or \$5.41 per share. This represents an immediate increase in pro forma as adjusted net tangible book value of \$1.33 per share to existing stockholders and an immediate dilution of \$11.59 per share to new investors. The following table illustrates this per share dilution:

Assumed initial public offering price per share		\$17.00
Historical net tangible book value (deficit) per share as of December 31, 2017	\$(17.21)	
Pro forma increase in net tangible book value (deficit) per share	<u>21.29</u>	
Pro forma net tangible book value per share as of December 31, 2017	4.08	
Increase in pro forma net tangible book value per share attributable to new investors	<u>1.33</u>	
Pro forma as adjusted net tangible book value per share after this offering		<u>5.41</u>
Dilution per share to new investors participating in this offering		<u>\$11.59</u>

A \$1.00 increase (decrease) in the assumed initial public offering price of \$17.00 per share (the midpoint of the estimated price range set forth on the cover of this prospectus) would increase (decrease) our pro forma as adjusted net tangible book value as of December 31, 2017 after this offering by approximately \$4.65 million, or approximately \$0.11 per share, and would decrease (increase) dilution to investors in this offering by approximately \$0.89 per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, after deducting the estimated underwriting discounts and commissions and estimated offering

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expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase of 1,000,000 in the number of shares we are offering would increase our pro forma as adjusted net tangible book value as of December 31, 2017 after this offering by approximately \$15.8 million, or approximately \$0.24 per share, and would decrease dilution to investors in this offering by approximately \$0.24 per share, assuming the assumed initial public offering price per share remains the same, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. A decrease of 1,000,000 in the number of shares we are offering would decrease our pro forma as adjusted net tangible book value as of December 31, 2017 after this offering by approximately \$15.8 million, or approximately \$0.25 per share, and would increase dilution to investors in this offering by approximately \$0.25 per share, assuming the assumed initial public offering price per share remains the same, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. The pro forma as adjusted information is illustrative only, and we will adjust this information based on the actual initial public offering price and other terms of this offering determined at pricing.

If the underwriters fully exercise their option to purchase additional shares, pro forma as adjusted net tangible book value after this offering would increase to approximately \$5.59 per share, and the dilution to new investors purchasing shares in this offering would be \$11.41 per share.

To the extent that outstanding options with an exercise price per share that is less than the pro forma as adjusted net tangible book value per share are exercised, new investors will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

The following table shows, as of December 31, 2017, on a pro forma as adjusted basis, the number of shares of common stock purchased from us, the total consideration paid to us and the average price paid per share by existing stockholders and by new investors purchasing common stock in this offering at an assumed initial public offering price of \$17.00 per share (the midpoint of the estimated price range set forth on the cover of this prospectus), before deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us (in thousands, except share and per share amounts and percentages):

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders	36,903,538	88.1%	\$222,387	72.3%	\$ 6.03
Investors participating in this offering	5,000,000	11.9	85,000	27.7	17.00
Total	<u>41,903,538</u>	<u>100%</u>	<u>\$307,387</u>	<u>100%</u>	<u>\$ 7.34</u>

The number of shares of common stock to be outstanding after this offering is based on 4,830,389 shares of common stock outstanding as of December 31, 2017, and includes an aggregate of 28,159,724 shares of common stock issuable upon conversion of our outstanding Series A-1, A-2 and B convertible preferred stock as of December 31, 2017 and 3,913,425 shares of our Series C convertible preferred stock issued in March and April 2018, and excludes the following:

- 4,365,694 shares of our common stock issuable upon the exercise of stock options to purchase common stock that were outstanding as of December 31, 2017, with a weighted average exercise price of \$3.07 per share;

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- 918,595 shares of our common stock reserved for issuance pursuant to future awards under our 2013 Equity Incentive Plan, or the Plan, and associated amendments as of December 31, 2017;
- 96,610 shares of our common stock issuable upon the exercise of an outstanding warrant with an exercise price of \$0.18 per share;
- 763,501 shares of our common stock issuable upon the exercise of outstanding convertible preferred stock warrants with a weighted-average exercise price of \$0.65 per share;
- 739,551 shares of our common stock that we may be obligated to issue under our license agreements;
- 4,289,936 shares of common stock reserved for issuance pursuant to future awards under our 2018 Equity Incentive Award Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective immediately prior to the consummation of this offering; and
- 536,242 shares of common stock reserved for issuance pursuant to future awards under our Employee Stock Purchase Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective immediately prior to the consummation of this offering.

SELECTED FINANCIAL DATA

You should read the following selected historical financial data below together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our audited financial statements, related notes and other financial information included elsewhere in this prospectus. The selected financial data in this section are not intended to replace the financial statements and are qualified in their entirety by the audited financial statements and related notes included elsewhere in this prospectus.

We derived our selected statements of operations data for the years ended December 31, 2016 and 2017 and the balance sheet data as of December 31, 2016 and 2017 from our audited financial statements included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that may be expected in any future period. The selected financial data below should be read in conjunction with the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes included elsewhere in this prospectus.

	Year Ended December 31,	
	2016	2017
	(in thousands, except share and per share data)	
Summary of Operations Data:		
Contribution revenue	\$ —	\$ 1,382
Operating expenses:		
Research and development	13,707	37,373
General and administrative	5,137	9,617
Total operating expenses	18,844	46,990
Loss from operations	(18,844)	(45,608)
Loss on extinguishment of promissory notes	(9,377)	—
Interest income (expense), net	(2,183)	1,055
Other expense, net	—	(103)
Net loss	\$ (30,404)	\$ (44,656)
Net loss per share, basic and diluted(1)	\$ (11.42)	\$ (13.97)
Weighted average number of shares used in computing net loss per share, basic and diluted(1)	2,662,841	3,197,516
Pro forma net loss per share, basic and diluted(1)		\$ (1.49)
Weighted average number of shares used in computing pro forma net loss per share, basic and diluted(1)		30,039,385

(1) See Notes 2 and 14 to our audited financial statements for an explanation of the calculations of our basic and diluted net loss per common share, pro forma net loss per common share, and the weighted-average number of common shares used in the computation of the per share amounts.

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	As of December 31,	
	2016	2017
	(in thousands)	
Balance Sheet Data:		
Cash and cash equivalents	\$ 89,286	\$ 7,298
Marketable securities	—	84,330
Working capital	89,718	80,983
Total assets	96,648	102,024
Convertible preferred stock	131,089	173,956
Accumulated deficit	(42,224)	(86,880)
Total stockholders' deficit	(41,536)	(83,113)

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 the section entitled "Selected Financial Data" and our audited financial statements and related notes included elsewhere in this prospectus. This discussion and other parts of this prospectus contain forward-looking statements that involve risks and uncertainties, such as our plans, objectives, expectations, intentions and beliefs. Our actual results could differ materially from those discussed in these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those identified below and those discussed in the section entitled "Risk Factors" included elsewhere in this prospectus.

Overview

We are a preclinical biotechnology company engaged in researching and developing therapeutics with a mission to extend human healthspan, the period of one's life unburdened by the diseases of aging. Enabled by foundational scientific insights, we have devoted over six years to identifying multiple mechanisms that we believe to be root causes of age-associated disease. We are utilizing these insights to develop a broad portfolio of drug candidates to treat these diseases of aging, and we plan to initiate our first clinical study of our lead drug candidate in the second quarter of 2018.

Since the commencement of our operations, we have invested a significant portion of our efforts and financial resources in research and development activities, and we have incurred net losses each year since inception. Our net losses were \$30.4 million and \$44.7 million for the years ended December 31, 2016 and 2017, respectively. We do not have any products approved for sale, and we have never generated any revenue from contracts with customers. As of December 31, 2017, we had an accumulated deficit of \$86.9 million, and we do not expect positive cash flows from operations in the foreseeable future. We expect to continue to incur net operating losses for at least the next several years as we continue our research and development efforts, advance our drug candidates through preclinical and clinical development, seek regulatory approval, prepare for and, if approved, proceed to commercialization.

We have funded our operations to date primarily from the issuance and sale of convertible preferred stock and convertible promissory notes. We do not expect to generate revenue from any drug candidates that we develop until we obtain regulatory approval for one or more of such drug candidates and commercialize our products or enter into collaboration agreements with third parties. Substantially all of our net losses have resulted from costs incurred in connection with our research and development programs and from general and administrative costs associated with our operations. As a result, we will need to raise additional capital. If sufficient funds on acceptable terms are not available when needed, we could be required to significantly reduce our operating expenses and delay, reduce the scope of, or eliminate one or more of our development programs.

We rely on third parties in the conduct of our preclinical studies and clinical studies and for manufacturing and supply of our drug candidates. We have no internal manufacturing capabilities, and we will continue to rely on third parties, many of whom are single-source suppliers, for our preclinical and clinical study materials. In addition, we do not yet have a marketing or sales organization or commercial infrastructure. Accordingly, we will incur significant expenses to develop a marketing and sales organization and commercial infrastructure in advance of generating any product sales.

Components of Our Results of Operations

Contribution Revenue

Contribution revenue to date has been derived from an agreement with a third-party organization under which we received funding in 2017 for the performance of certain research and development activities in pursuit of the third-party organization's philanthropic mission.

Research and Development Expenses

Research and development expenses consist primarily of costs incurred for the development of our drug candidates, which include:

- personnel-related expenses, including salaries, benefits and stock-based compensation for personnel contributing to research and development activities;
- laboratory expenses including supplies and services;
- expenses incurred under agreements with third-party contract manufacturing organizations, contract research organizations, research and development service providers, academic research institutions, and consultants;
- expenses related to license and sponsored research agreements; and
- facilities and other allocated expenses, including expenses for rent and facilities maintenance, and depreciation and amortization.

We expect our research and development expenses to increase substantially in the future as we advance our drug candidates into and through clinical studies and pursue regulatory approval of our drug candidates. The process of conducting the necessary clinical studies to obtain regulatory approval is costly and time-consuming. Clinical studies generally become larger and more costly to conduct as they advance into later stages and, in the future, we will be required to make estimates for expense accruals related to clinical study expenses. The actual probability of success for our drug candidates may be affected by a variety of factors including: the safety and efficacy of our drug candidates, early clinical data, investment in our clinical program, the ability of collaborators, if any, to successfully develop any drug candidates we license to them, competition, manufacturing capability and commercial viability. We may never succeed in achieving regulatory approval for any of our drug candidates. As a result of the uncertainties discussed above, we are unable to determine the duration and completion costs of our research and development projects or when and to what extent we will generate revenue from the commercialization and sale of our drug candidates. Due to the early-stage nature of our lead programs, we do not track costs on a project-by-project basis. As our programs enter clinical studies, we intend to track the cost of each program.

General and Administrative Expenses

Our general and administrative expenses consist primarily of personnel costs, allocated facilities costs and other expenses for outside professional services, including legal, audit and accounting services. Personnel costs consist of salaries, benefits and stock-based compensation. We expect to incur additional expenses associated with operating as a public company, including expenses related to compliance with the rules and regulations of the Securities and Exchange Commission, or SEC, and standards applicable to companies listed on a national securities exchange, additional insurance expenses, investor relations activities and other administrative and professional services. We also expect to increase the size of our administrative headcount to support the growth of our business and operate as a public company.

Loss on Extinguishment of Promissory Notes

Loss on extinguishment of promissory notes consists of the difference between the fair value of the convertible notes elected to be accounted for under the fair value option and the fair value of the shares of convertible preferred stock for which these notes were settled.

Interest Income (Expense), net

Interest expense is primarily related to the discount created from a contingent beneficial conversion on our promissory notes that was recognized in 2016 upon the conversion of these promissory notes to convertible preferred stock. Interest income is primarily related to interest earned on our marketable securities in 2017.

Results of Operations**Comparison of the year ended December 31, 2016 and 2017**

The following table sets forth the significant components of our results of operations:

	Year Ended December 31,		Change
	2016	2017	
	(in thousands)		
Summary of Operations Data:			
Contribution revenue	\$ —	\$ 1,382	\$ 1,382
Operating expenses:			
Research and development	13,707	37,373	23,666
General and administrative	5,137	9,617	4,480
Total operating expenses	18,844	46,990	28,146
Loss from operations	(18,844)	(45,608)	(26,764)
Loss on extinguishment of promissory notes	(9,377)	—	9,377
Interest income (expense), net	(2,183)	1,055	3,238
Other expense, net	—	(103)	(103)
Net loss	<u>\$(30,404)</u>	<u>\$(44,656)</u>	<u>\$(14,252)</u>

Contribution Revenue

Contribution revenue for the year ended December 31, 2017 was related to funding we recognized from a third-party organization in 2017 for the performance of certain research and development activities in pursuit of that organization's philanthropic mission.

Research and Development

Research and development expenses increased by \$23.7 million from \$13.7 million for the year ended December 31, 2016 to \$37.4 million for the year ended December 31, 2017. The increase was primarily due to an increase of \$10.4 million for direct research and development costs related to consultants, third-party contract research organizations, and preclinical studies as we expanded and continued to progress our development programs. Additionally, we had a \$8.6 million increase in personnel-related expenses, of which \$1.5 million related to stock-based compensation due to an increase in our headcount, an increase of \$1.9 million in lab supplies as we expanded our lab space, \$1.0 million in facility-related costs, and a \$1.0 million increase in depreciation and amortization primarily related to leasehold improvements associated with our new space.

General and Administrative

General and administrative expenses increased by \$4.5 million from \$5.1 million for the year ended December 31, 2016 to \$9.6 million for the year ended December 31, 2017. The increase was primarily due to an increase in personnel-related expenses of \$2.9 million, of which \$1.3 million related to stock-based compensation, as a result of an increase in our headcount and an increase of \$1.3 million related to unconditional funding provided to academic institutions in 2017.

Loss on Extinguishment of Promissory Notes

We recognized a loss on extinguishment of promissory notes issued in July, September, and October 2016 of \$9.4 million upon the settlement of such notes in 2016 for shares of Series B convertible preferred stock.

Interest Income (Expense), net

Our interest income was \$1.1 million for the year ended December 31, 2017 as we invested our cash in marketable securities.

We recognized interest expense of \$2.2 million for the year ended December 31, 2016 primarily related to the discount created from a contingent beneficial conversion on the February, April, and May 2016 promissory notes which was recognized upon the conversion of such notes in 2016 into shares of Series B preferred stock.

Liquidity, Capital Resources and Capital Requirements

Sources of Liquidity

We have incurred net losses each year since inception. Our net losses were \$30.4 million and \$44.7 million for the years ended December 31, 2016 and 2017. We do not have any products approved for sale, and have never generated any revenue from contracts with customers. As of December 31, 2017, we had \$91.6 million in cash, cash equivalents, and marketable securities and an accumulated deficit of \$86.9 million. In March and April 2018, we received net proceeds of \$59.9 million from the sale and issuance of shares of our Series C convertible preferred stock. Additionally, we do not expect positive cash flows from operations in the foreseeable future. Historically, we have incurred operating losses as a result of ongoing efforts to develop our drug candidates, including conducting ongoing research and development, preclinical studies and providing general and administrative support for these operations. We expect our operating losses and net cash used in operating activities will increase over at least the next several years as we continue our research and development activities, advance our drug candidates through preclinical and clinical testing and move into later and more costly stages of drug development, hire personnel and prepare for regulatory submissions and the commercialization of our drug candidates.

We have historically financed our operations primarily through issuance and sale of convertible preferred stock and convertible promissory notes and will continue to be dependent upon equity and/or debt financing until we are able to generate positive cash flows from our operations.

Future Funding Requirements

To date we have not generated any revenue for contracts with customers and have only received a contribution from a third party organization for certain research and development activities to support their philanthropic mission. We expect to continue to incur significant losses for the foreseeable future, and we expect the losses to increase as we continue the development of, and seek regulatory

approvals for, our drug candidates, and begin to commercialize any approved products. We are subject to all of the risks typically related to the development of new drug candidates, and we may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. Moreover, following the completion of this offering, we expect to incur additional costs associated with operating as a public company. We anticipate that we will need substantial additional funding in connection with our continuing operations.

Until we can generate a sufficient amount of revenue from the commercialization of our drug candidates or from collaboration agreements with third parties, if ever, we expect to finance our future cash needs through public or private equity or debt financings. Additional capital may be raised through the sale of our equity securities, incurring debt, entering into licensing or collaboration agreements with partners, receiving research contributions, grants or other sources of financing to fund our operations. There can be no assurance that sufficient funds will be available to us on attractive terms or at all. If we are unable to obtain additional funding from these or other sources, it may be necessary to significantly reduce our rate of spending through reductions in staff and delaying, scaling back, or stopping certain research and development programs. Insufficient liquidity may also require us to relinquish rights to drug candidates at an earlier stage of development or on less favorable terms than we would otherwise choose.

Since our inception, we have incurred significant losses and negative cash flows from operations. We have an accumulated deficit of \$86.9 million through December 31, 2017. We expect to incur substantial additional losses in the future as we conduct and expand our research and development activities. We believe that our existing cash, cash equivalents, and marketable securities will be sufficient to enable us to fund our projected operations through at least the next 12 months. We expect our existing capital resources together with the proceeds from this offering will fund our planned operating expenses into 2021, including through clinical data readout from our Phase 1 clinical study of UBX0101 and data readouts from two additional Phase 1 clinical studies of our lead programs for ophthalmologic and pulmonary disorders.

We have based our projections of operating capital requirements on assumptions that may prove to be incorrect and we may use all our available capital resources sooner than we expect. Because of the numerous risks and uncertainties associated with research, development and commercialization of biotechnology products, we are unable to estimate the exact amount of our operating capital requirements. Our future funding requirements will depend on many factors, including, but not limited to:

- the scope, progress, results and costs of researching and developing UBX0101, UBX1967 or any other drug candidates, and conducting preclinical studies and clinical studies, including our planned Phase 1 clinical study of UBX0101, which we expect to initiate in the second quarter of 2018;
- the timing of, and the costs involved in, obtaining regulatory approvals for our lead drug candidates or any future drug candidates;
- the number and characteristics of any additional drug candidates we develop or acquire;
- the timing and amount of any milestone payments we are required to make pursuant to our license agreements;
- the cost of manufacturing our lead drug candidates or any future drug candidates and any products we successfully commercialize;
- the cost of building a sales force in anticipation of product commercialization;
- the cost of commercialization activities if our lead drug candidates or any future drug candidates are approved for sale, including marketing, sales and distribution costs;

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- our ability to maintain existing, and establish new, 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;
- our efforts to enhance operational, financial and information management systems and hire additional personnel, including personnel to support development of our drug candidates;
- 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 or cleared products, if any.

Cash Flows

The following table sets forth a summary of the primary sources and uses of cash for each of the periods presented below:

	Year Ended December 31,	
	2016	2017
	(in thousands)	
Cash used in operating activities	\$ (16,398)	\$(38,358)
Cash used in investing activities	(2,744)	(86,305)
Cash provided by financing activities	107,938	42,775
Net increase (decrease) in cash	<u>\$ 88,796</u>	<u>\$(81,888)</u>

Cash Flows Used in Operating Activities

Cash used in operating activities of \$38.4 million for the year ended December 31, 2017 consisted primarily of a net loss of \$44.7 million, which was partially offset by non-cash charges of \$4.0 million and a decrease in our net operating assets of \$2.3 million. Our non-cash charges primary consisted of \$1.3 million for depreciation and amortization expense and \$3.0 million for stock-based compensation expense. The decrease in our net operating assets of \$2.3 million was primarily due to an increase in accrued compensation of \$1.6 million related to our bonus accrual and increases in accounts payable of \$1.2 million and accrued and other current liabilities of \$1.3 million as we expand our operations, partially offset by an increase in our contribution receivable of \$1.4 million.

Cash used in operating activities of \$16.4 million for the year ended December 31, 2016 consisted primarily of a net loss of \$30.4 million, which was partially offset by non-cash charges of \$12.0 million and a decrease in our net operating assets of \$2.0 million. Our non-cash charges primarily consisted of \$9.4 million for loss on extinguishment of our July, September, and October 2016 promissory notes and \$2.2 million for interest expense related to our February, April and May 2016 promissory notes. The decrease in our net operating assets was due primarily to an increase in accrued and other current liabilities of \$1.0 million primarily related to deferred rent for our facility lease entered into in 2016 and an increase in our accrued compensation of \$0.5 million.

Cash Flows Used in Investing Activities

Cash used in investing activities of \$86.3 million for the year ended December 31, 2017 was related to purchases of marketable securities of \$134.5 million and purchases of property and

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equipment of \$1.7 million, which were partially offset by maturities of marketable securities of \$49.8 million.

Cash used in investing activities of \$2.7 million for the year ended December 31, 2016 was related to the purchases of property and equipment of \$2.2 million and the purchase of a cost method investment of \$0.5 million.

Cash Flows Provided by Financing Activities

Cash provided by financing activities of \$42.8 million for the year ended December 31, 2017 was primarily related to net proceeds from the issuance of shares of our convertible preferred stock.

Cash provided by financing activities of \$107.9 million for the year ended December 31, 2016 was primarily related to net proceeds of \$91.0 million from the issuance of shares of our convertible preferred stock and proceeds of \$16.9 million from the issuance of convertible promissory notes which have since been converted into or settled with shares of convertible preferred stock.

Contractual Obligations and Other Commitments

The following table summarizes our contractual obligations as of December 31, 2017:

	Payments due by period				Total
	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years	
	(in thousands)				
Contractual obligations:					
Operating lease(1)	\$1,846	\$4,084	\$3,756	\$ —	\$9,686
Capital lease	78	124	—	—	202
Total contractual obligations	<u>\$1,924</u>	<u>\$4,208</u>	<u>\$3,756</u>	<u>\$ —</u>	<u>\$9,888</u>

(1) Our contractual obligations and commitments primarily relate to our facilities lease agreement. We have a lease for laboratory and office space in Brisbane, California. The current lease is for approximately 39,000 square feet and the lease period expires in October 2022.

We are party to various license agreements pursuant to which we have in-licensed rights to various technologies, including patents, research “know-how” and proprietary research tools, for the discovery, research, development and commercialization of drug products to treat diseases of aging. The license agreements obligated us to make certain milestone payments related to specified clinical development and sales milestone events, as well as tiered royalties in the low-single digits based on sales of licensed products. This table does not include any milestone payments or royalty payments to third parties as the amounts, timing and likelihood of such payments are not known. See Note 5 to our Financial Statements “License Agreements” for additional information.

Off-Balance Sheet Arrangements

We have not entered into any off-balance sheet arrangements. Our license and compound library and option agreement with a privately held clinical-stage biopharmaceutical company represents a variable interest in a variable interest entity, or VIE. However, we do not consolidate this entity in our financial statements because we are not considered to be its primary beneficiary.

Critical Accounting Polices and Estimates

This discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with GAAP. The preparation of these 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 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 more detail in the notes to our financial statements included elsewhere in this prospectus, we believe that the following accounting policies are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

Research and Development Expenses

Costs related to research and development of drug candidates are charged to research and development expense as incurred. Research and development costs include, but are not limited to, payroll and personnel expenses for personnel contributing to research and development activities, laboratory supplies, outside services, licenses acquired to be used in research and development and allocated overhead, including rent, equipment, depreciation and utilities. Payments made prior to the receipt of goods or services to be used in research and development are deferred and recognized as expense in the period in which the related goods are received or services are rendered.

We have and may continue to enter into license agreements to access and utilize certain technology. We evaluate if the license agreement is an acquisition of an asset or a business. To date none of our license agreements have been considered to be an acquisition of a business. For asset acquisitions, the upfront payments to acquire such licenses, as well as any future milestone payments made before product approval, are immediately recognized as research and development expense when due, provided there is no alternative future use of the rights in other research and development projects. These license agreements may also include contingent consideration in the form of cash and additional issuances of our common stock. We assess whether such contingent consideration meets the definition of a derivative. To date, we have determined that such contingent consideration are not derivatives. We will continuously reassess this determination until such time that the contingency is met or expires.

Variable Interest Entities

We assess whether we are the primary beneficiary of a variable interest entity, or VIE, at the inception of the arrangement we enter into with third party entities and at each reporting date. This assessment is based on our power to direct the activities of the VIE that most significantly impact the VIE's economic performance and our obligation to absorb losses or the right to receive benefits from the VIE that could potentially be significant to the VIE.

Stock-Based Compensation

We recognize compensation costs related to stock options granted to employees and nonemployees based on the estimated fair value of the awards on the date of grant, and we recognize forfeitures as they occur. For awards that vest solely based on service conditions or a combination of service and performance conditions, we estimate the grant date fair value, and the resulting stock-

based compensation expense, using the Black-Scholes option-pricing model. The grant date fair value of the awards is generally recognized on a straight-line basis over the requisite service period, which is typically their vesting period.

The Black-Scholes option-pricing model requires the use of highly subjective assumptions to determine the fair value of stock-based awards. These assumptions include:

- *Expected term*—The expected term represents the period that the stock-based awards are expected to be outstanding. We use the simplified method to determine the expected term, which is based on the average of the time-to-vesting and the contractual life of the options.
- *Expected volatility*—Since we are not yet a public company and do not have any trading history for our common stock, the expected volatility is estimated based on the average historical volatilities of common stock of comparable publicly traded entities over a period equal to the expected term of the stock option grants. The comparable companies are chosen based on their size, stage in the product development 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 yield in effect at the time of grant for zero-coupon U.S. Treasury notes with maturities approximately equal to the expected term of the awards.
- *Expected Dividend*—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.

For options granted to non-employee consultants, the fair value of these options is also remeasured using the Black-Scholes option-pricing model reflecting consistent assumptions as applied to employee options in each of the reported periods, other than the expected term, which is assumed to be the remaining contractual life of the option.

We have also granted stock options to certain key employees that vest in conjunction with certain performance and market conditions. We estimate the fair value of these awards using a lattice model, taking into consideration the market conditions. No expense will be recorded related to these awards until the achievement of the performance condition becomes probable. Once the achievement of the performance condition becomes probable, expense related to these awards is recognized using the accelerated attribution method with a cumulative catch-up adjustment over the derived service period relating to the market conditions, if the market conditions have not been met. As these awards vest in their entirety upon achievement of the market conditions, any unrecognized expense would be accelerated if the market conditions are achieved prior to the completion of the derived service period.

As there has been no public market for our common stock to date, the estimated fair value of our common stock has been determined by our board of directors, with input from management, considering our most recently available third-party valuations of common stock and our board of directors' assessment of additional objective and subjective factors that it believed were relevant, and factors that may have changed from the date of the most recent valuation through the date of the grant. These factors include, but are not limited to: the prices at which we sold shares of our convertible preferred stock to outside investors in arms-length transactions; the rights, preferences and privileges of our convertible preferred stock relative to those of our common stock; our results of operations, financial position and capital resources; current business conditions and projections; the lack of marketability of our common stock; the hiring of key personnel and the experience of management; progress of our research and development activities; our stage of development and material risks related to its business; the fact that the option grants involve illiquid securities in a private company; and the likelihood of achieving a liquidity event, such as an initial public offering or sale, in light of prevailing market conditions.

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We have periodically determined the estimated fair value of our common stock at various dates using contemporaneous valuations performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants' Accounting and Valuation Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*, or the Practice Aid. The Practice Aid identifies various available methods for allocating enterprise value across classes and series of capital stock to determine the estimated fair value of common stock at each valuation date. In accordance with the Practice Aid, our board of directors considered the following methods:

- *Current Value Method.* Under the Current Value Method, or CVM, our value is determined based on our balance sheet. This value is then first allocated based on the liquidation preference associated with preferred stock issued as of the valuation date, and then any residual value is assigned to the common stock.
- *Option-Pricing Method.* Under the option-pricing method, or OPM, shares are valued by creating a series of call options with exercise prices based on the liquidation preferences and conversion terms of each equity class. The estimated fair values of the preferred and common stock are inferred by analyzing these options.
- *Probability-Weighted Expected Return Method.* The probability-weighted expected return method, or PWERM, is a scenario-based analysis that estimates value per share based on the probability-weighted present value of expected future investment returns, considering each of the possible outcomes available to us, as well as the economic and control rights of each share class.

Our board of directors and management develop best estimates based on application of these approaches and the assumptions underlying these valuations, giving careful consideration to the advice from our third-party valuation expert. Such estimates 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 equity-based compensation could be materially different. Following the closing of this offering, our board of directors will determine the fair market value of our common stock based on its closing price as reported on the date of grant on the primary stock exchange on which our common stock is traded.

The intrinsic value of all outstanding options as of December 31, 2017 was approximately \$60.8 million, based on the assumed initial public offering price of \$17.00 per share, which is the midpoint of the estimated initial public offering price range set forth on the cover page of this prospectus, of which approximately \$13.3 million is related to vested options and approximately \$47.5 million is related to unvested options.

Income Taxes

We use the asset and liability method of accounting for income taxes, in which deferred tax assets and liabilities are recognized for future tax consequences attributable to the differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using the enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be reversed. The effect on deferred tax assets and liabilities of a change in tax rates is recognized as income in the period that includes the enactment date. A valuation allowance is established if it is more likely than not that all or a portion of the deferred tax asset will not be realized.

Our tax positions are subject to income tax audits. We recognize the tax benefit of an uncertain tax position only if it is more likely than not that our position is sustainable upon examination by the taxing authority, based on the technical merits. The tax benefit recognized is measured as the largest

amount of benefit which is more likely than not to be realized upon settlement with the taxing authority. We recognize interest accrued and penalties related to unrecognized tax benefits in our tax provision. We evaluate uncertain tax positions on a regular basis. The evaluations are based on a number of factors, including changes in facts and circumstances, changes in tax law, correspondence with tax authorities during the course of the audit, and effective settlement of audit issues. Our provision for income taxes includes the effects of any accruals that we believe are appropriate, as well as the related net interest and penalties.

On December 22, 2017, the Tax Cuts and Jobs Act ("Tax Act") was signed into law. The Tax Act lowered the Federal corporate tax rate from 35% to 21% and made numerous other tax law changes. The Company has measured deferred tax assets at the enacted tax rate expected to apply when these temporary differences are expected to be realized or settled. U.S. GAAP requires companies to recognize the effect of tax law changes in the period of enactment.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 ("SAB 118") that allows us to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. We are currently analyzing the impact of the various provisions of the 2017 Tax Act. The ultimate impact may differ from the provisional amounts recorded. We expect to complete our analysis within the measurement period in accordance with SAB 118.

Reasonable estimates were made based on the Company's analysis of the Tax Act. These provisional amounts may be adjusted during 2018 when additional information is obtained. Additional information that may affect our provisional amounts would include further clarification and guidance on how the Internal Revenue Service will implement the Tax Act, including guidance with respect to guidance on how state taxing authorities will implement tax reform and the related effect on our state income tax returns, completion of our 2017 tax return filings, and the potential for additional guidance from the Financial Accounting Standards Board related to the Tax Act. Under the Tax Act, net operating losses ("NOLs") arising after December 31, 2017 may be carried forward indefinitely. However, NOLs arising after December 31, 2017 will be limited to 80% of taxable income. Our NOLs generated in 2017 and in prior years will not be subject to the limitations under the Tax Act.

JOBS Act Accounting Election

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies.

We have elected to use this extended transition period to enable us to comply with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date 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 financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

Quantitative and Qualitative Disclosures about Market Risk

We are exposed to market risks in the ordinary course of our business. These risks primarily relate to interest rate sensitivities. We had cash, cash equivalents and marketable securities of \$91.6 million as of December 31, 2017, which consist of bank deposits, money market funds, and marketable securities. The primary objective of our investment activities is to preserve capital to fund our operations. We also seek to maximize income from our investments without assuming significant

risk. Because our investments are primarily short-term in duration, we believe that our exposure to interest rate risk is not significant, and a 1% movement in market interest rates would not have a significant impact on the total value of our portfolio. We had no debt outstanding as of December 31, 2017.

Recent Accounting Pronouncements

See Note 2 to our Financial Statements “Summary of Significant Accounting Policies” for information.

BUSINESS

Overview

Our mission is to extend human healthspan. We define healthspan, or healthy longevity, as the period of one's life unburdened by the diseases of aging. Enabled by foundational scientific insights, we have devoted over six years to identifying multiple mechanisms that we believe to be root causes of age-associated disease. We are utilizing these insights to develop a broad portfolio of drug candidates to treat these diseases of aging, and we plan to initiate our first clinical study of our lead drug candidate in the second quarter of 2018. We believe our team of scientific, clinical, and business leaders and our strong culture of collaboration with external scientists make us uniquely qualified to accomplish our ambitious mission.

Age-associated diseases such as arthritis, vision loss, and cognitive decline cause considerable economic, personal, and societal burden. As individuals age, the prevalence of chronic disease increases, with 80% of older Americans having at least one chronic disease and 50% having two or more. Age-associated diseases negatively impact quality of life, are typically chronic, and progress from the time of onset until death. It is estimated that providing healthcare for people over the age of 65 costs four to five times more than for younger individuals. According to the Centers for Disease Control and Prevention, this elderly population of Americans is expected to nearly double by 2050, increasing the economic burden of aging dramatically. Any success increasing longevity without treating underlying diseases of aging would only serve to increase this burden.

Over the last three decades, knowledge of the fundamental mechanisms of aging has advanced considerably. As a result of these advances, aging is no longer characterized as a single, over-arching process but rather as multiple biological and cellular processes working concurrently. We now have evidence that one of these mechanisms, the accumulation of senescent cells, is a fundamental mechanism of aging and a major driver of many common age-associated diseases. Further, we believe that we have developed the tools required to target this mechanism. We have demonstrated in preclinical studies published in *Nature* ("Naturally occurring P16Ink4a-positive cells shorten healthy lifespan," *Nature* (2016)) and "Clearance of p16Ink4a-positive senescent cells delays ageing associated disorders," *Nature* (2011)) and *Science* ("Senescent intimal foam cells are deleterious at all stages of atherosclerosis," *Science* (2016)) that the selective elimination of accumulated senescent cells extends both the healthspan and lifespan of animals and slows, halts, or reverses particular diseases of aging.

With these tools in hand we have developed a portfolio of programs targeting specific biological mechanisms implicated in diseases of aging and a pipeline of drug candidates to attack specific age-associated diseases, beginning with musculoskeletal, ophthalmologic, and pulmonary indications.

Cellular Senescence

Cellular senescence is a natural biological state in which a cell permanently halts division. These cells are referred to as senescent. As senescent cells accumulate with age, they begin secreting large quantities of more than 100 proteins, including inflammatory factors, proteases, fibrotic factors, and growth factors that disturb the tissue micro-environment. This collection of secreted proteins is referred to as the Senescence Associated Secretory Phenotype, or SASP. In addition to its effects on tissue function, the SASP contains factors that induce senescence in neighboring cells, setting off a cascade of events that culminates in the formation of the functionally aged and/or diseased tissue that underlies a variety of age-associated diseases.

Senolytic medicines selectively eliminate senescent cells and stop the production of the SASP at its source, which we believe addresses a root cause of diseases of aging. Existing therapeutics, such as antibodies, target single SASP factors, but fail to remove the cells that continually produce multiple SASP factors. By stopping the production of the SASP at its source, we believe senolytic medicines

studies, we have demonstrated that by targeting this pathway our molecule exhibits selectivity for senescent cells while sparing non-senescent cells in preclinical studies. We plan to submit our IND application and commence a Phase 1 clinical study in an ophthalmologic indication in the second half of 2019.

In addition to the above, we expect to file one additional IND application in the second half of 2019 for a Phase 1 clinical study in either an additional ophthalmologic indication or an initial pulmonary indication. We retain worldwide rights to UBX0101 and have an option to an exclusive license for UBX1967 pursuant to our compound library and option agreement with Ascentage Pharma Group Corp. Ltd., or Ascentage. See “—Licenses and Collaborations”

Our Team

We have assembled an executive team of scientific, clinical, and business leaders with broad expertise in biotechnology. Our co-founder and President, Nathaniel (Ned) E. David, Ph.D., is a biochemist and experienced entrepreneur, having founded four biotechnology companies, including Syrrx (acquired by Takeda Pharmaceuticals), Achaogen, Inc. (a public biopharmaceutical company), and KYTHERA Biopharmaceuticals (acquired by Allergan). Our Chief Executive Officer, Keith R. Leonard Jr., M.S., M.B.A., was CEO of KYTHERA Biopharmaceuticals from its founding through its acquisition in 2015 and held numerous leadership roles over thirteen years at Amgen, including Senior Vice President and General Manager of Amgen Europe. Our Chief Medical Officer, Jamie Dananberg, M.D., has held leadership roles at Takeda Pharmaceuticals and Eli Lilly & Co. and has overseen the development of eight FDA-approved products. Our Chief Scientific Officer, Daniel G. Marquess, D.Phil., served as Vice President and Head of Medicinal Chemistry at Theravance Biopharma, where he led the chemistry department to leverage Theravance’s multivalent approach to create Theravance’s pipeline of differentiated medicines. We have approximately 70 employees, over 65% of whom hold advanced degrees.

We have built a strong culture of teamwork with emphasis on external collaboration, providing us with access to rapidly-evolving science. We were co-founded by three leading scientists, Judith Campisi, Ph.D., Jan Van Deursen, Ph.D., and Daohong Zhou, M.D., and maintain more than a dozen active early-stage research and discovery focused collaborations with leading external academic institutions, including: the Buck Institute for Research on Aging; Massachusetts General Hospital; Mayo Clinic; the Medical Research Council (MRC, Imperial College); The University of California, San Francisco; and Yale University.

Our Strategy

To achieve our objective of building Unity into a leading healthspan company, we focus on two parallel efforts. First, we are committed to developing senolytic medicines that slow, halt, or reverse specific diseases of aging. Second, we dedicate significant resources and effort to better understand fundamental aging mechanisms and translate these insights into human medicines. This pioneering work is supported by valuable collaborations with leading academics. By investing early in the science of aging, we believe we are positioned to transition the field of aging biology from fundamental scientific insights to the development and commercialization of medicines. Our core strategies to achieve this objective include:

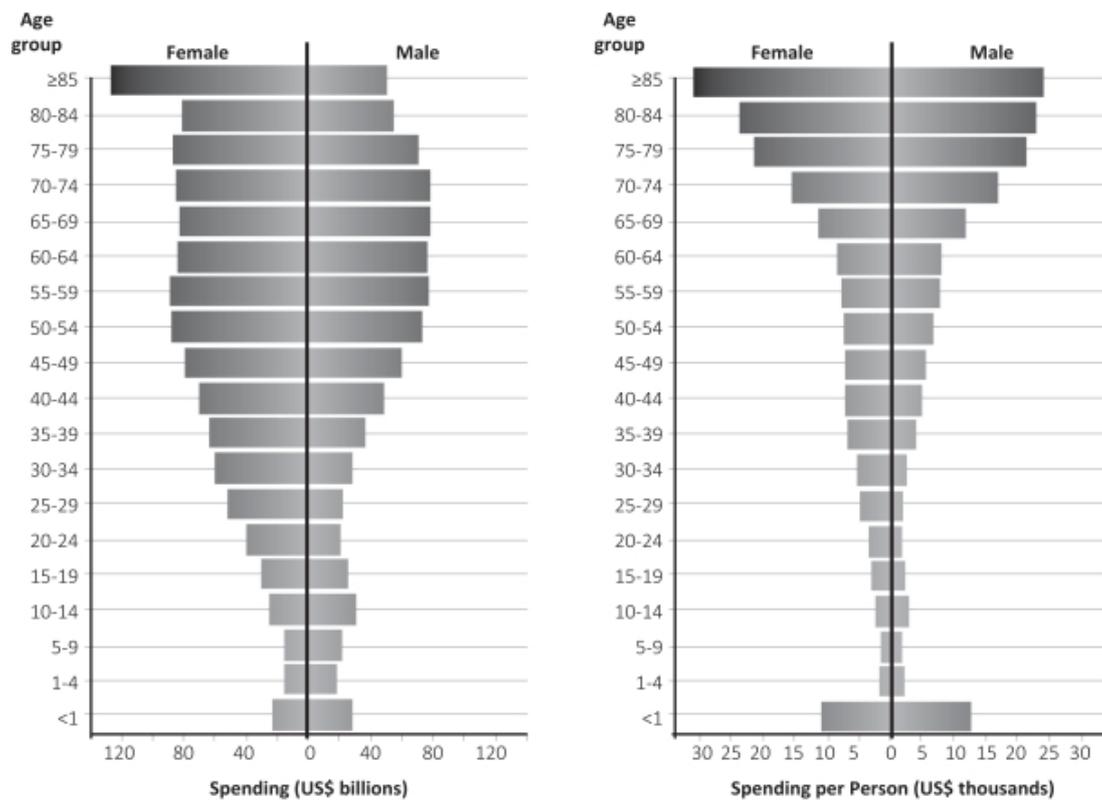
- **Demonstrate in our clinical studies that local treatment with senolytic medicines can alter the course of an age-associated disease.** We believe that local treatment with senolytic medicines has the potential to slow, halt, or reverse aspects of aging. If we prove this concept in a localized setting, we will be well-positioned to expand upon that success with numerous additional applications.

- **Continue research into the development of systemic senolytic medicines.** We believe that harnessing the full potential of senolysis, or the selective elimination of senescent cells, to alter many diseases of aging will require systemic senolytic medicines. We intend to explore the development of systemic senolytic medicines using multiple modalities, including small molecules and biologics.
- **Target aging mechanisms beyond cellular senescence.** While cellular senescence and senolysis have been shown to affect the course of multiple diseases of aging, we believe achieving our broader goal of extending human healthspan will require intervention in additional aging mechanisms beyond cellular senescence. We will continue to conduct fundamental research into these other aging mechanisms, including loss of circulating youth factors and mitochondrial dysfunction. We will also continue to partner with the most forward-thinking aging researchers in the world to foster a collaborative environment to bring their insights, innovation, and technologies into our powerful research and drug development infrastructure.
- **Leverage our core science and biotechnology experience.** We strive to attract, retain, and incentivize a unique team with significant strengths and experience in basic science, biotechnology, medicinal chemistry, and clinical development. Over the last six years, our team has identified multiple mechanisms that can selectively eliminate senescent cells, created potent senolytic molecules, and developed proprietary animal models to monitor senescent cell clearance. We have developed significant insight into the relationship between senescent cells and diseased tissues. Further, our management team has extensive biotechnology and pharmaceutical experience, and has played a leadership role in the creation of numerous FDA-approved medicines.
- **Opportunistically expand our product portfolio.** Our internal research has identified multiple biological pathways that are potential targets for diseases of aging. We will search for opportunities for potential in-licensing of novel medicines with rapid access to clinical development. We expect that our current leadership in the biology of cellular senescence will serve as a foundation for us to develop numerous products to treat human disease.
- **Continue to build a robust and defensible patent portfolio.** We are an innovative biotechnology company focused on developing novel insights into the biology and diseases of aging. Our current patent portfolio consists, on a worldwide basis, of nine issued or allowed patents and over 60 additional pending patent applications which we own, co-own or have exclusively licensed. We intend to continue to aggressively develop, file, and pursue additional patent protection for our innovative technologies.

Healthspan and Diseases of Aging

Age-associated diseases such as arthritis, vision loss, and cognitive decline cause considerable economic, personal and societal burden. As individuals age, the prevalence of chronic disease increases, with 80% of older Americans having at least one chronic disease and 50% having two or more. This deterioration of health negatively impacts quality of life, and age-associated diseases generally persist from the time of onset until death.

Diseases of aging drive significant healthcare spending. It is estimated that providing healthcare for people over the age of 65 costs four to five times more than for younger individuals. The Centers for Medicare and Medicaid Services expect US health spending to exceed \$5.2 trillion by 2025, which is equal to approximately 20% of the projected US gross national product for the same year. According to the Centers for Disease Control and Prevention, the population of Americans aged 65 years or older is expected to nearly double by 2050, dramatically increasing the economic burden of aging. The chart below represents total (left) and per capita (right) spending on health care in the United States during 2013 (in 2015 dollars) as a function of age.



Moreover, diseases associated with aging have a detrimental impact on quality of life and older adults are often less optimistic about their future. Of the 34 million family caregivers in the United States who support aging relatives, many find a deterioration in their own health and well-being as a result.

We believe that by creating medicines that target fundamental aging mechanisms, we can reduce the economic, personal, and societal burden of aging and enhance quality of life.

Historical Approaches

As highlighted in *Nature Medicine*, a number of compounds have been developed to target fundamental aging mechanisms, including rapamycin, resveratrol, and metformin. These approaches were motivated by empirical observations in humans and data from the treatments of lower species (worms, flies, and mice) with these compounds. We believe that the lack of meaningful clinical data, potential serious side effects, and limited, if any, efficacy make these approaches less suitable for

widespread age-associated disease intervention and the extension of human healthspan on a large scale.

Compounds Targeting Drivers of Aging			
Compound	Potential Target/Treatment	Use	Risks
Rapamycin	mTORC1, mTORC2	Treatment of cancer, metabolic disease, and cardiovascular disease	Immunosuppression, insulin resistance, cataract formation, degeneration of testis
Metformin	Mitochondria AMPK, mTOR	Treatment of hyperglycemia, cancer, & metabolic disease	Unknown
Resveratrol	SIRT AMPK	Extension of healthy aging	Unknown
Anti-CGRP	CGRP, CGRP receptors such as calcitonin receptor-like (CALCRL)	Migraine treatment, metabolic diseases reduction, reduction of low-grade inflammation in healthy aging	Pain insensitivity, hypothermia
Unknown compound	Methionine restriction	Metabolic disease treatment, extension of healthy aging	Hepatic steatosis, weight loss, depression
LY2405319 (Lilly), avimer polypeptide against FGF-21, FGFR-1c, and β -Klotho (Amgen)	Reduced IIS, reduced FGF-21, Klotho, PAPP-A protein levels	Metabolic disease treatment, extension of healthy aging	Reduced bone mass, hyperinsulinemia, insulin resistance, somatic growth

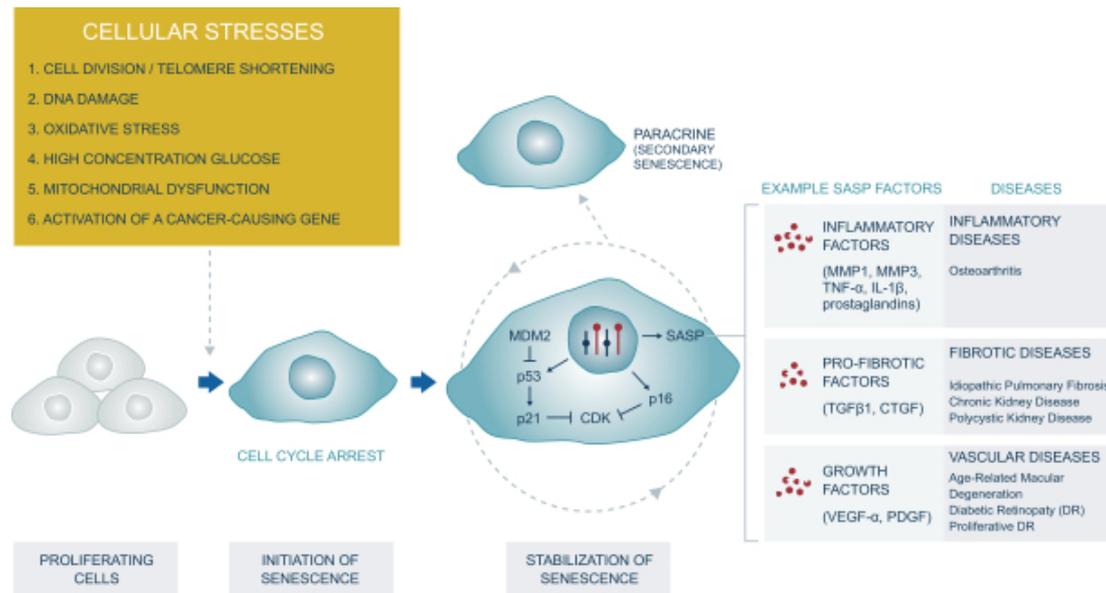
Our Approach to Extending Human Healthspan

Causes of Cellular Senescence

Cellular senescence is a natural biological state in which a cell permanently halts division. Cells become senescent when they experience some form of unresolvable cellular stress. To date, six stress mechanisms have been identified that can cause a cell to become senescent, including (i) extensive cell division and telomere shortening, (ii) DNA damage, (iii) oxidative stress, (iv) high concentration glucose, (v) mitochondrial dysfunction, and (vi) activation of a cancer-causing gene.

These cellular stress events result in the activation of the tumor suppressor protein p53, which drives the production of two cell-cycle dependent kinase inhibitors (CDK inhibitors) p21 and p16. These two molecules are required for the establishment and subsequent maintenance of the senescent cell state. The first CDK inhibitor to be produced is p21, which works through subsequent pathways to block the production of numerous proteins that cells need to divide. The initial p21-driven signal is an acute response to cell damage and eventually decreases. In contrast, p16 permanently locks the cell into a non-dividing state, and the production of p16 continues as long as the cell lives. Given that p16 production continues indefinitely and is believed to be produced only in senescent cells, it is a widely used marker to identify and quantify senescent cells.

The process through which stress mechanisms can induce cells to become senescent is illustrated in the figure below.

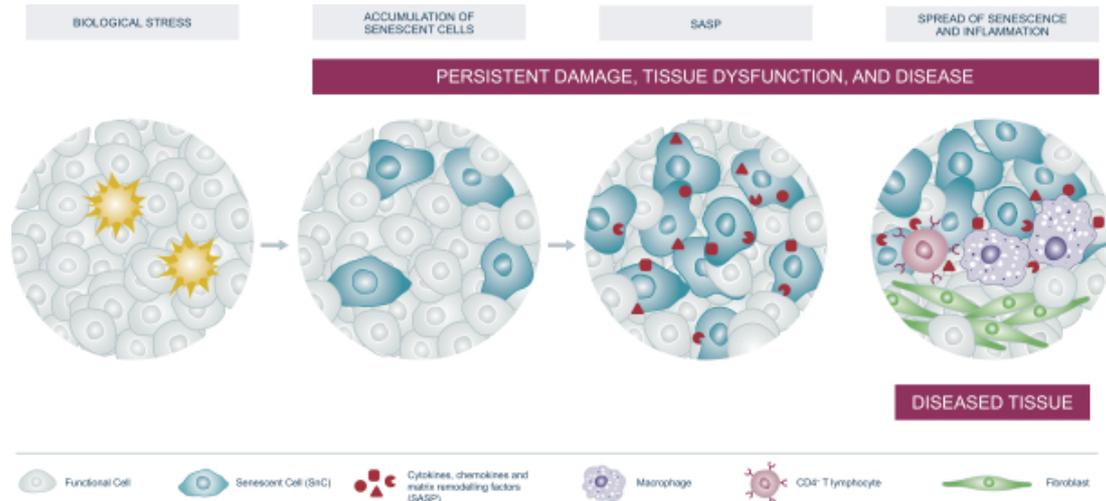


How Senescent Cells Drive Diseases of Aging: The SASP

Once cells become senescent, they begin secreting large quantities of more than 100 proteins, including pro-inflammatory factors that recruit the immune system, proteases that remodel the extra-cellular matrix, pro-fibrotic factors that drive the formation of dysfunctional matrix, and growth factors that perturb the function of the tissue micro-environment. This collection of secreted proteins is referred to as the Senescence Associated Secretory Phenotype, or SASP(s). In addition to its effects on tissue function, the SASP contains factors that induce senescence in neighboring cells, setting off a cascade

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of events that ultimately culminates in the formation of a functionally aged and/or diseased tissue that underlies a variety of age-associated diseases. This process is illustrated in the figure below.



Numerous SASP factors have been implicated as potentially contributing to human disease and it is now believed that the SASP is the primary means by which senescent cells drive specific diseases of aging. For example, a variety of single SASP factors (TNF α and VEGF α) have been demonstrated to drive human diseases by themselves and have been the target of well-known antibody therapeutics, including HUMIRA[®] and EYLEA[®]. While these antibodies are able to modify human disease by removing the activity of a single SASP factor, we believe the clearance of senescent cells will remove the source of numerous SASP factors, providing both improved efficacy and duration-of-effect.

A History of the Science of Senescent Cells and Their Role in Diseases of Aging

In 1961, Leonard Hayflick, Ph.D. demonstrated that human cells have a finite capacity to divide, a concept now referred to as the "Hayflick Limit." Dr. Hayflick suggested that humans age because senescent cells are unable to participate in tissue repair.

In 1993, Manuel Serrano, Ph.D. et al. discovered the p16 gene and described its role as an anti-cancer mechanism. In 1996, David Alcorta, Ph.D. recognized that p16 induced a state of cellular senescence by binding to and inhibiting the function of cycle-dependent kinases. These two discoveries laid the groundwork for the use of p16 as a universal marker of senescent cells and the use of the p16 promoter to selectively remove senescent cells from living animals.

In 2008, Judith Campisi, Ph.D. (of the Buck Institute for Research on Aging and one of our scientific co-founders) demonstrated that senescent cells produce the SASP. Also in 2008, Jan van Deursen, Ph.D. (of Mayo Clinic and one of our scientific co-founders) demonstrated that mice engineered to produce large numbers of senescent cells age rapidly and that the deletion of p16 reduced some of these aging effects. In 2011, Dr. van Deursen and Darren Baker, Ph.D. extended this work, demonstrating that mice allowed to accumulate senescent cells aged more rapidly, and that the elimination of these accumulated cells blunted multiple aspects of aging. For these efforts, *Science* listed the work of Drs. Baker and van Deursen as one of the top breakthroughs of 2011.

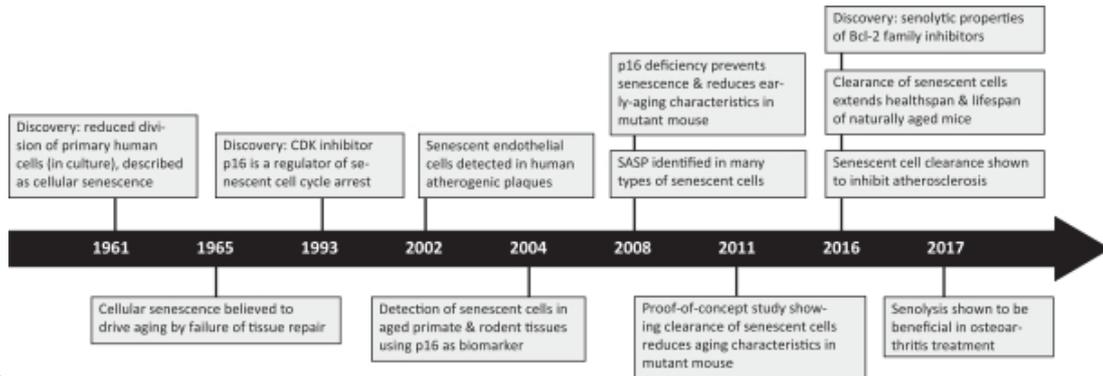
In 2015, Daohong Zhou, Ph.D. (one of our scientific co-founders while at the University of Arkansas Medical Center) and a Unity scientist demonstrated that a single drug-like molecule could

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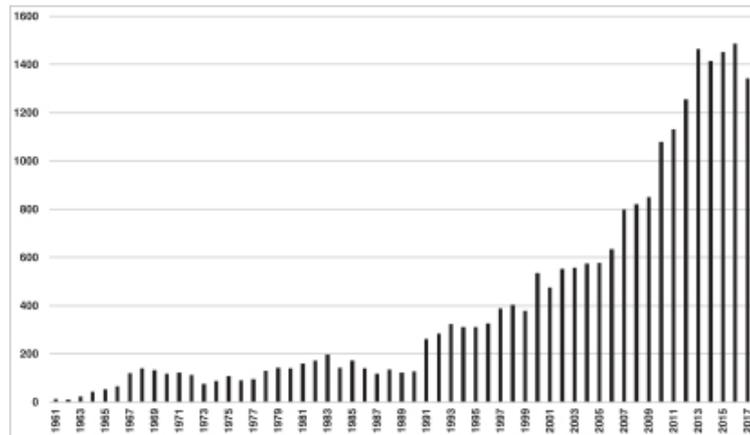
eliminate senescent cells from a living animal. While the molecule used for this demonstration, a Bcl-2 family inhibitor, was not ideally suited to become a medicine, the work demonstrated that the findings of Drs. Campisi, van Deursen, and Baker could be achieved with a small molecule. The molecule utilized was also one of the world's first demonstrably senolytic molecules and has led to the design of more potent and selective senolytics.

In 2016 and 2017, significant scientific advancements in senescence biology were reported, with publications demonstrating that senescent cells mediated the effects of aging in naturally aged mice. In particular, *Science* again acknowledged the field of senescence, highlighting research finding that senolytic molecules could potentially blunt the senescence-driven effects of the cardiovascular disease atherosclerosis as one of the top breakthroughs of 2016. In addition, we (in collaboration with investigators at Johns Hopkins) reported that osteoarthritis was potentially driven by senescent cells and that senolytic molecules could mitigate, and potentially reverse, the disease.

The following figure illustrates the chronology of key scientific findings in senescence biology underlying our senolytic medicine approach.

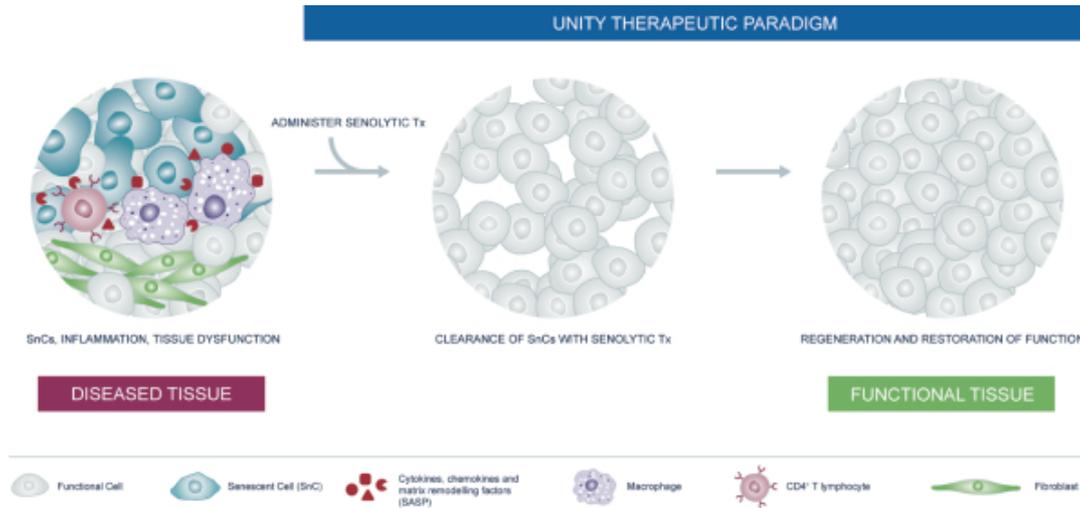


Concurrent with these advances, there has been a rapid increase in the number of scientific papers in the field. The substantial increase in the number of scientific publications including the term “cellular senescence” (on a yearly basis) is reflected in the chart below.



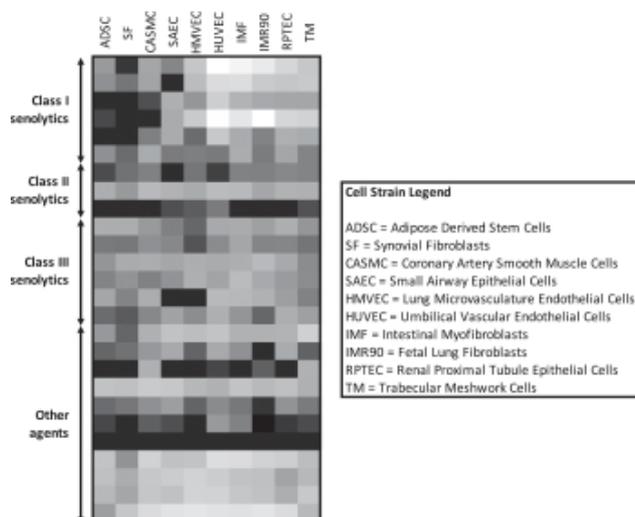
Our Therapeutic Paradigm

We were founded on the principle that the selective elimination of senescent cells and their accompanying SASP has the potential to slow, halt, or reverse diseases of aging. Our insights into senescent cell biology allow us to identify senescence-driven diseases, target the senescent cells driving a particular disease, and selectively eliminate these cells. The figure below illustrates this process.



In developing this approach, we have acquired significant expertise with respect to senescent cell survival pathways, which are the signaling systems that senescent cells rely on for survival. When these pathways are inhibited with specifically designed molecules, senescent cells undergo programmed cell death. Through our research, we have identified several of these mechanistically distinct survival pathways, which differ depending on cell type and the tissue in which the senescent cells reside.

Using small molecules, we have cataloged these survival pathways on a cell-type-by-cell-type basis into a database we refer to as the ATLAS, shown in the simplified figure below. The database indicates which senescent cell types implicated in various diseases of aging rely on which survival pathways, and thus which senolytic molecules may be used to trigger the elimination of these cells. The ATLAS provides us with a map of chemical starting points for the creation of senolytic medicines.



Advantages of Our Approach

We believe that senolytic medicines—medicines that selectively eliminate senescent cells from diseased tissues—may have four advantages over other efforts to treat age-associated diseases:

- **Senolytic medicines target a root cause of diseases of aging.** We believe that the accumulation of senescent cells is a root cause of many diseases of aging. Unlike treatments that inhibit the activity of a single factor (such as antibodies targeting single pro-inflammatory proteins), we believe a senolytic medicine that selectively eliminates accumulated senescent cells and their associated SASP could simultaneously blunt the activity of numerous factors contributing to disease. As a result, senolytic medicines could have significantly advantaged efficacy because they target diseases at their source and are able to normalize tissue levels of numerous disease-causing factors simultaneously.
- **Senolytic medicines are dosed intermittently.** The administration of senolytic medicines would remove senescent cells from diseased tissue. As new senescent cells may take months or even years to re-accumulate, senolytic medicines could potentially be dosed infrequently. We believe that intermittent dosing (rather than ongoing chronic dosing) could restore normal tissue function such that further drug administration would not be required until senescent cells have re-accumulated. Intermittent dosing may also improve drug tolerability and patient adherence when compared to chronic therapies.
- **Senescent cells accumulate at sites of disease, simplifying multiple aspects of clinical development.** Senescent cells accumulate at sites of disease and drive disease through their accompanying SASP. Our ability to quantify senescent cells and accompanying SASP factors in sites of disease may simplify clinical development in a number of ways. First, we can simplify indication selection to pursue the development of senolytic medicines for diseases in which we observe the local accumulation of senescent cells. Second, it is possible to identify patients that

may better respond to senolytic medicines based on p16 expression and other biomarkers of senescence. Third, we can potentially monitor for response to therapy by tracking the reduction of senescence-associated biomarkers.

- **Senolytic medicines restore tissues to a healthy state.** We believe senescent cells generally do not accumulate in young individuals and that the accumulation of senescent cells is unnecessary for normal tissue function. Our goal for the administration of senolytic medicines is to restore tissue to a functionally younger state.

Our Discovery and Development Strategy

Our clinical development strategy is initially to develop senolytic medicines designed to be administered locally into diseased tissue (either by injection or inhalation), which reduces systemic toxicological risks by limiting drug exposure largely to the treated tissue. We believe that each of our senolytic programs has the potential to address a root cause of an age-associated disease. After demonstrating efficacy in indications amenable to localized therapy, we plan to pursue the development of senolytic medicines that could be administered systemically, initially acting on specific tissues for which direct local administration is challenging. Ultimately, we envision the potential for systemic administration of senolytic medicines to selectively eliminate senescent cells throughout the body to treat systemic diseases of aging, such as kidney, liver, and heart disease. We are also developing medicines that act on aging mechanisms beyond cellular senescence, such as those that address the loss of circulating youth factors and enhance mitochondrial health. By targeting specific biological mechanisms that are implicated in diseases of aging, our vision is to address the body as a whole, reducing age-associated diseases and extending human healthspan. We plan to initiate our first clinical study for our lead drug candidate in the second quarter of 2018.

Statistical Significance

In the description of our preclinical studies below, n represents the number of patients in a particular group and p or p-values represent the probability that random chance caused the result (e.g., a p-value = 0.001 means that there is a 0.1% probability that the difference between the placebo group and the treatment group is purely due to random chance). A p-value \leq 0.05 is a commonly used criterion for statistical significance, and may be supportive of a finding of efficacy by regulatory authorities.

Cellular Senescence Biology Program

Musculoskeletal/Osteoarthritis Programs

Unmet Need and Therapeutic Rationale

Diseases of the musculoskeletal system represent one of the leading causes of disability in the world, particularly among the aging population. According to the 2015 World Health Organization World Report on Ageing and Health, musculoskeletal diseases accounted for the most years spent living with a disability by those over age 50 in the developed world. To date, senescence has been linked with osteoarthritis of the knee, hip, and intervertebral (spine) facet joints, degeneration of intervertebral discs, and loss of bone density.

Osteoarthritis, or OA, is a degenerative disease that negatively impacts subchondral bone and the synovial tissue surrounding the joint, causing pain and physical impairment. The effect of tissue degeneration causes the normally smooth joint layers to become fragmented and pitted, the synovial tissue to become inflamed and thickened, and the bone to develop abnormal morphology, all of which lead to a decrease in joint function and mobility, pain, and physical impairment. OA is a highly

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prevalent disease, symptomatically affecting as many as 10% to 15% of the world's population over age 60 and results in a decline in quality of life. The most common joint affected by OA is the knee, followed by the hip, ankle, and shoulder. Importantly, the current standard of care begins with symptomatic treatment that temporarily addresses joint inflammation or pain control. The natural progression of treatment often results in joint replacement surgery. Based on data from the Agency for Healthcare Research and Quality (US HHS) for 2009, the aggregate cost of knee and hip replacements in the United States was \$42.3 billion. The overall cost of OA is estimated to be greater than \$150 billion per year in the United States.

We believe that the accumulation of senescent cells and associated SASP are significant contributing factors in OA disease. A number of SASP factors are secreted by senescent cells into the tissue and synovial fluid surrounding an affected joint, including inflammatory cytokines, such as the interleukins IL-1 β and IL-6; matrix metalloproteinases, such as MMP-1, MMP-3 and -13; tumor necrosis factor alpha (TNF- α); and prostanoids, such as prostaglandin E2. We believe these SASP factors lead to cartilage loss, inflammation of the synovial membrane, abnormalities to bone, degeneration of the joint cartilage, and pain.

Evidence for Cellular Senescence Burden in Human Disease and Human Biomarker Discovery

To evaluate the link between cellular senescence, SASP accumulation and OA disease, we conducted a non-interventional biomarker study in 30 patients with primary OA of the knee. The enrolled patients displayed a range of OA disease between grades 1 and 4 based on an X-ray scoring system called the Kellgren-Lawrence, or KL, grade, which is a common research tool used to classify grades of OA utilizing a classification range between 0, referring to no disease, and 4, referring to severe disease. During the study, patients underwent knee MRI imaging with contrast enhancement and arthroscopy, a fiber optic surgical device inserted into the knee joint, for biopsy of synovial membrane and non-weight bearing cartilage. They also provided blood and urine, and underwent pain scoring, as measured by the WOMAC-A sub-scale, a commonly used standardized questionnaire that includes questions about pain, to evaluate their OA disease status and its relationship to senescent cell burden.

Immunohistochemistry, or IHC, of the sampled tissue demonstrated p16-positive cells affecting a number of cell types within the synovial membrane (Figure 1). The degree of senescence was quantified in these samples by measuring the percentage of p16 positive cells relative to the total cell number in the specimen.

Figure 1.

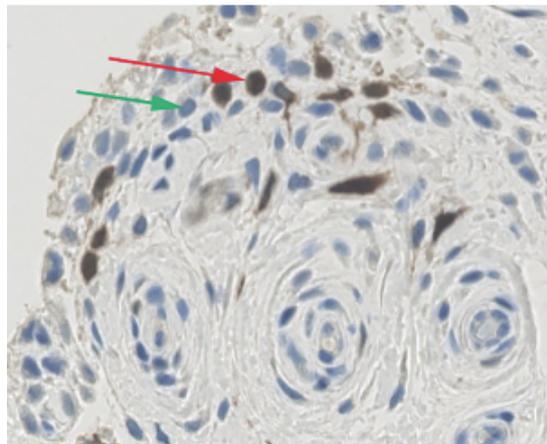


Figure 1. Human biomarker study demonstrated presence of senescent cells (p16 positive, red arrow) in patients with osteoarthritis. Non-senescent cells are depicted by the green arrow.

Several significant findings were identified by assessing the relationship between the percent of p16-positive cells and other measures in this study. First, the extent of senescence was significantly correlated with the concentration of a well-established inflammatory marker associated with OA, namely IL-6 (Figure 2A). Second, the extent of senescence in the synovial membrane from each patient showed statistically significant correlation to the amount of pain each of those patients experienced at the start of the study, based on the WOMAC-A pain sub-scale (Figure 2B). Third, the extent of senescence in the synovial membrane, including examining specific individual areas within the knee, showed statistically significant correlation with the MRI-based synovitis score that evaluates 11 different regions within the knee (Figure 2C). Finally, a relationship trend was identified when assessing the correlation between the extent of senescence and the grade of disease based on the KL grade. When evaluating the relationship in patients with mild to moderately severe disease (KL grades 1-3), this relationship was statistically significant (Figure 2D).

Figure 2A. Relationship between degree of senescence (p16) and synovial fluid SASP Factors (IL-6)

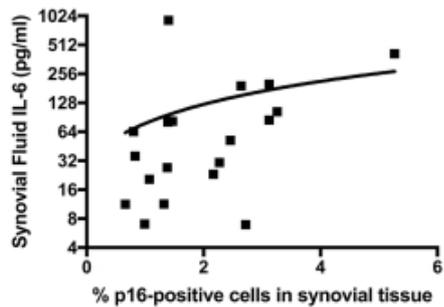


Figure 2A. Relationship between concentration of IL-6 and percent of p16 positive cells within the synovial membrane. Regression adjusted partial R, rank = 0.5888, p-value = 0.0137. The regression adjusted partial R is the correlation after adjustment for body mass index (BMI), age, and KL grade.

Figure 2B. Relationship between degree of senescence (p16) and patient reported pain scores (WOMAC-A)

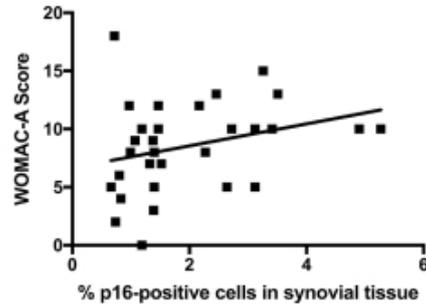


Figure 2B. Relationship between WOMAC-A Score and percent of p16 positive cells within the synovial membrane. Regression adjusted partial R, rank = 0.4554, p-value = 0.0147.

Figure 2C. Relationship between degree of senescence (p16) and synovial membrane inflammation (MRI Synovitis Score)

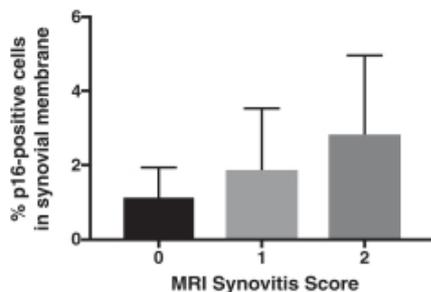


Figure 2C. Relationship between MRI synovitis score and percent of p16 positive cells within the synovial membrane; p-value overall = 0.0008; Score 0 vs 2, p = 0.0043; Score 1 vs 2, p = 0.0656.

Figure 2D. Relationship between degree of senescence (p16) and stage of OA disease (KL Grade)

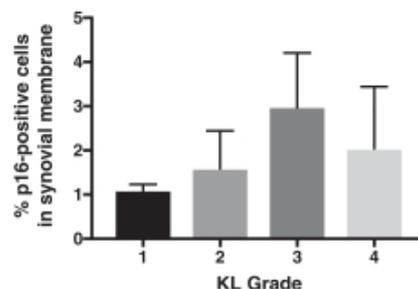


Figure 2D. Relationship between KL grade and percent of p16 positive cells within the synovial membrane. Trend observed across all grades; across grades 1-3, p=0.005 in an unadjusted regression model.

Mechanism of Action of UBX0101

Our drug candidate, UBX0101, is a small molecule inhibitor of the MDM2/p53 protein interaction. The tumor suppressor p53 is a transcription factor that regulates a broad set of genes that control cellular functions including cell cycle arrest, cell death (or apoptosis), and senescence. MDM2 is a protein-ubiquitin ligase that marks proteins for destruction. UBX0101 binds to MDM2, raising p53 levels and causing senescent cells to undergo apoptosis.

Preclinical Studies with UBX0101

We conducted *in vitro* experiments to study the potency of UBX0101 and its ability to eliminate senescent cells. *In vitro* studies demonstrate that UBX0101 is a potent inducer of p53 expression and senescent cell apoptosis (Figure 3). This confirmed that UBX0101 elevates p53 and eliminates senescent cells.

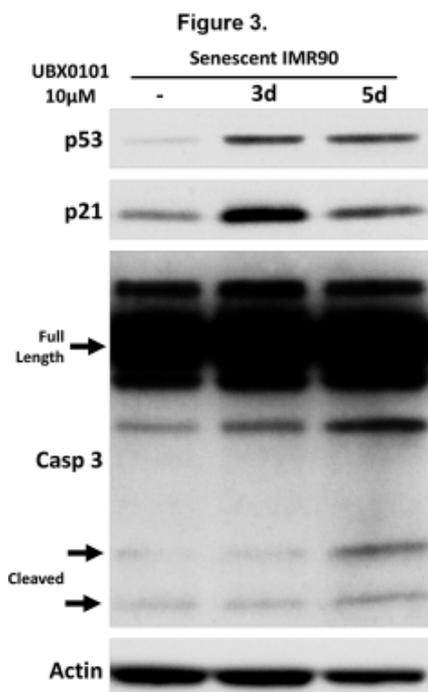
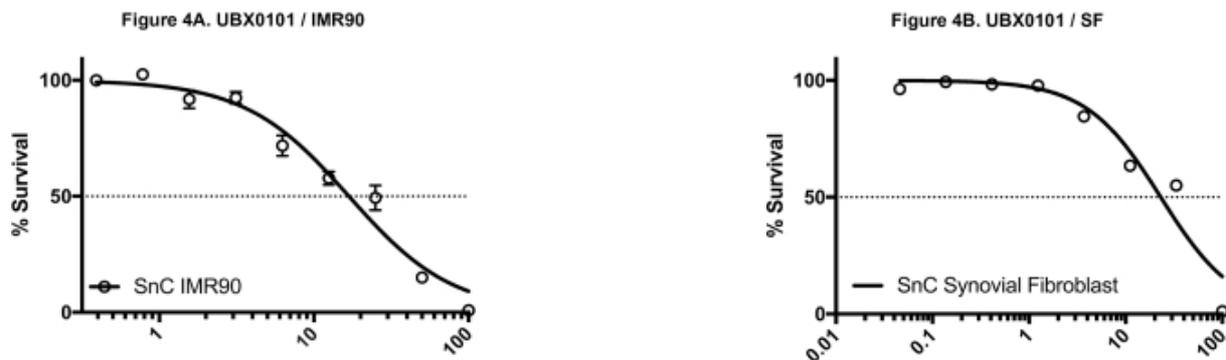


Figure 3. Induction of p53, p21, and caspase 3 activation by treatment with UBX0101 in senescent IMR90 cells.

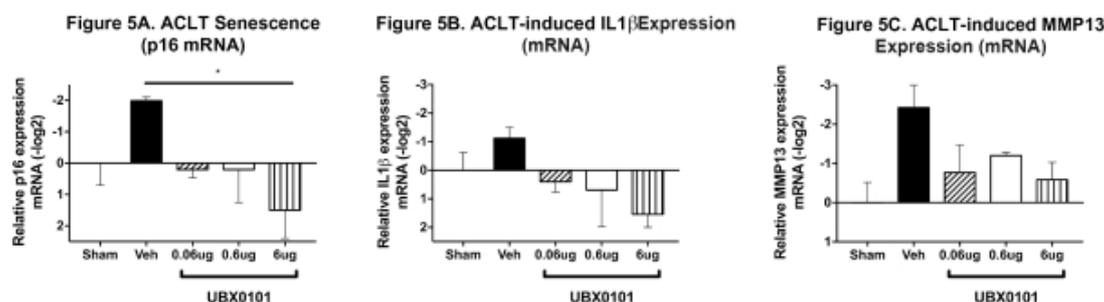
In particular, treatment of irradiated human fetal lung fibroblasts, or IMR90 (Figure 4A), and irradiated human primary synovium fibroblasts, or SF (Figure 4B), exhibited a dose-dependent potent reduction of senescent cell survival.



Figures 4A and 4B. Dose-dependent induction of apoptosis by UBX0101 (μM) in senescent IMR90 cells and senescent synovial fibroblast (SF) cells.

IMR90 cells have been the cell line used to study senescence biology for the past 30 years. They present a useful model to study senescence *in vitro* because they are normal cells without acquired mutations that could drive resistance to drug-induced apoptosis. We use IMR90 and synovial fibroblast cells as our primary screens and complement these two cell types with disease-relevant primary cell cultures to confirm that mechanisms of senescence translate to the relevant cell type.

We next studied the *in vivo* efficacy of UBX0101 in a mouse model of osteoarthritis. We used the mouse anterior cruciate ligament, or ACL, transection model in which the ACL is transected in a surgical procedure after which the mouse is allowed to recover for 14 days. This model induces an aggressive form of OA characterized by inflammation, cartilage degeneration, and pain. We selected this model as it has demonstrated the accumulation of senescent cells. Intra-articular (IA) dosing of our clinical candidate, UBX0101, led to a dose-dependent reduction of senescent cells as measured by lowering the expression of p16 (Figure 5A) and a reduced expression of SASP factors, including IL-1 β (Figure 5B) and MMP13 (Figure 5C). These data further support our hypothesis that elimination of senescent cells with UBX0101 in this model leads to changes in accompanying SASP.



Figures 5A, 5B and 5C. IA dosing of UBX0101 reduces p16 expression ($*p \leq 0.05$) and OA-relevant SASP factors, including IL-1 β and MMP13 expression levels in the ACLT murine model.

Attempts to replicate these findings in different animal models of OA have proven to be challenging, as it is difficult to mimic a disease like OA, which develops over a long period of time in humans, in short-term animal models. For example, a model of OA using the rat medial meniscal-tibial ligament, or MX, transection failed to produce significant senescence, while a recently conducted canine model of OA in which both the ACL and MX were transected produced significantly higher levels of senescence (roughly 10-fold higher than that of the mouse ACL model). In those studies, administration of UBX0101 did not appear to affect either senescence burden or SASP factors.

We also conducted an *ex vivo* study in which cartilage from active OA lesions was obtained from human knees following total knee replacement surgery, placed in culture, and treated with UBX0101. The regions of high OA disease tissue burden correlated well with higher p16 and MMP13 biomarker levels, which we believe is a key indicator of cellular senescence-driven disease. When treated with UBX0101, the number of p16 positive cells and cells expressing MMP13 were greatly reduced. In addition, the expression of two key proteins, type 2 collagen and aggrecan, were significantly upregulated (Figure 6). These two proteins are among the most abundant components of cartilage. These data suggest that chondrocytes from patients with end-stage OA are capable of synthesizing cartilage once accumulated senescent cells are removed. As a result, we believe that intervening *in vivo* in humans could not only slow the progression of OA, but could also induce a reparative state in which more functional tissue is restored.

Figure 6. Increased Expression of Differentiation in Response to UBX0101

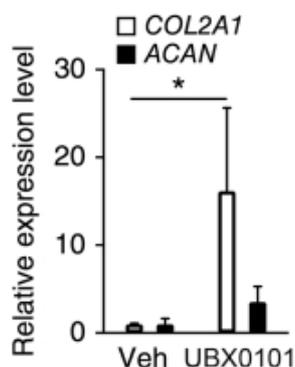


Figure 6. Treatment with UBX0101 leads to an increase in type 2 collagen (COL2A1) and aggrecan (ACAN) in explants of OA knee samples from total knee arthroplasty (n=4; *p<0.05)

In 2017, we completed a number of IND-enabling studies of UBX0101 to evaluate the potential local and systemic toxicity via single intra-articular and oral administration.

The potential for local toxicity was assessed in GLP-compliant studies after a single-dose intra-articular injection in both rabbits (doses of 0.1, 0.3 and 0.6 mg/joint) and canines (doses of 0.1, 0.3 and 1.0 mg/joint). Findings from these rabbit and canine studies showed that a single intra-articular administration of UBX0101 was well tolerated at doses up to 0.6 mg/joint in the rabbit and 1 mg/joint in the canine, the highest doses tested in the GLP toxicity studies. UBX0101-related histopathological findings after a single intra-articular injection were limited to fibrinoid degeneration and mixed cell inflammation of the synovium in canines. Neither the degeneration nor the inflammation was considered adverse at any dose level due to the minimal severity of the changes. There was no evidence of systemic toxicity in the canines following intra-articular injection. Although histopathological findings were noted in earlier exploratory rabbit studies performed at high doses (up to 9 mg/joint), no UBX0101-related findings in the joint or evidence of systemic toxicity were noted in the 2017 GLP toxicity study conducted in rabbits.

The potential systemic toxicity was evaluated in GLP-compliant toxicity studies after a single oral administration in both rats (doses of 30, 300 and 600 mg/kg) and canines (doses of 30, 100 and 300 mg/kg). In these studies, the no-observed-adverse-effect level (NOAEL) was 300 mg/kg in rats and 100 mg/kg in canines. At doses of 100 mg/kg and above, adverse effects after oral dosing

consisted of transient, reversible and monitorable clinical signs in canines (300 mg/kg), decrease in body weight in canines (100 and 300 mg/kg) and rats (600 mg/kg) and clinical pathology changes (decrease in hematopoietic populations and increase in hepatic parameters) in both canines (100 and 300 mg/kg) and rats (300 mg/kg and 600 mg/kg). At pathological examination, changes in hematopoietic organs were noted in both rats (600 mg/kg) and dogs (100 and 300 mg/kg) whereas non-adverse liver-related changes were observed in rats only (300 and 600 mg/kg). These effects were observed at systemic exposures that are greater than 800 fold the anticipated maximum exposure in patient after a single intra articular injection.

The potential genotoxicity of UBX0101 was evaluated in the following GLP studies: (i) a bacterial reverse mutation assay (*in vitro*) at concentrations up to 5000 µg/plate, (ii) a chromosome aberration assay (*in vitro*) at concentrations ranging from 0.25 µg/ml to 300 µg/ml, and (iii) a rat micronucleus assay (oral/once) at doses of 500, 1000 and 2000 mg/kg. In these studies, UBX0101 was non-mutagenic in bacterial species up to a concentration of 5000 µg/plate and it was weakly positive *in vitro* for inducing chromosomal aberrations, which is consistent with the pharmacological activity of UBX0101. It was negative for inducing polyploidy and endoreduplication in cultured human lymphocytes and negative in the *in vivo* rat micronucleus at oral doses up to 2000 mg/kg, the maximum recommended dose based on regulatory guidelines.

We also conducted the following safety pharmacology studies: (i) hERG channel in mammalian cells (*in vitro*) at concentrations of 1, 3, 10 and 30 µM, (ii) central nervous system in rat (oral/once) at doses of 30, 300 and 600 mg/kg, (iii) cardiovascular in canine (oral/once) at doses of 10, 30 and 100 mg/kg, and (iv) respiratory in rat at doses of 30, 300 and 600 mg/kg. These studies indicated that the risk for significant hERG inhibition *in vivo* is minimal. UBX0101 demonstrated a low potential for cardiovascular effects in canines (NOAEL of 30 mg/kg) and did not produce any effect on ventilatory function or neurobehavioral effects in rats at doses up to 30 mg/kg (the no-observed-effect-level, or NOEL) when given as a single oral administration.

The nonclinical exploratory and GLP studies have demonstrated that findings related to the proposed clinical intra-articular route of administration are generally non-adverse and likely to be reversible. There was no systemic toxicity noted after intra-articular injection in safety assessment studies at any dose level tested. Estimated UBX0101 knee concentrations at the NOAEL from the safety studies were 38-fold higher than the exposures required to achieve the EC50 concentration in the *in vitro* OA knee efficacy model. Based on the findings of our preclinical studies, we believe the safety pharmacology and toxicology studies support the evaluation of UBX0101 in the proposed Phase 1 clinical program.

UBX0101 Development Plan

Our IND application for UBX0101 was cleared by the FDA in April 2018, and we plan to initiate a Phase 1 clinical study in OA patients in the second quarter of 2018. The Phase 1 study is planned as a randomized, double-blind, placebo-controlled study to investigate the safety and tolerability of single, ascending intra-articular doses of UBX0101. Additional secondary objectives of the study are to evaluate plasma pharmacokinetics, daily pain intensity using an 11-point numeric rating score of pain, WOMAC osteoarthritis scores derived from the Knee Injury and Osteoarthritis Outcome Score (KOOS) instrument (a patient-reported outcome measurement index), and an 11-point synovitis score during contrast-enhanced MRI imaging from patients. We also plan to measure plasma and synovial fluid biomarkers to qualify biomarkers identified from the previously discussed biomarker study and to identify new biomarkers that can potentially measure the effect of UBX0101 on measures of senescence. At the conclusion of this study, we expect to have the option to use any of the supportive assessments of safety and tolerability along with positive signals of pharmacodynamics to support the expansion of selected cohorts to sufficiently power a proof-of-concept study. Additionally, we could explore higher doses if safety assessments were supportive and we could conduct a repeated dose study to optimize the dosing regime for future trials.

As part of our ongoing commitment to our OA program, we have designed a number of follow-on senolytic molecules that include differing mechanisms of action and that target distinct molecular biological targets.

Ophthalmology Programs

Unmet Need and Therapeutic Rationale

The majority of significant eye diseases are age related, with the prevalence of vision-threatening disease increasing significantly over the age of 75. Of the 285 million individuals worldwide living with visual impairment, 65% are over the age of 50. The individual diseases that are associated with these figures include glaucoma, age-related macular degeneration, and diabetic eye disease, all of which have a high prevalence and significant unmet need in either prevention or therapeutic options. The three diseases that we are evaluating as initial target indications for local administration of senolytic therapy in the eye are diabetic retinopathy, primary open angle glaucoma, and age-related macular degeneration.

Diabetic Retinopathy

Diabetic retinopathy is estimated to affect over 90 million people globally and approximately 28 million have vision-threatening stages of disease. It is a leading cause of vision loss in middle-aged and elderly people and impacts 8% of the U.S. population over age 65. Due to the increasing diabetic population arising from lifestyle changes in developing countries, the disease incidence is predicted to climb.

Diabetic retinopathy is a complex multifactorial disease, characterized by progression through a series of stages of increasing severity. High glucose levels incite a variety of inflammatory and a number of metabolic stress-induced events leading to proliferation of abnormal blood vessels, or neovascularization, with subsequent bleeding and swelling causing visual loss. The risk of developing diabetic retinopathy and its severity increase with the duration of underlying diabetes. It is also associated with poor glycemic control and the presence of additional coexistent diseases, such as high blood pressure, high cholesterol levels, and impaired kidney function.

Current standard of care for diabetic retinopathy (blood sugar control, anti-vascular endothelial growth factor (VEGF) drugs, and laser therapy) is modestly effective. Limitations of existing therapy include general challenges with compliance in diabetes control, the need for frequent intravitreal, or in the eye, injections for the administration of anti-VEGF therapy, a significant percentage of patients not completing or being non-responsive to anti-VEGF therapy, and tissue destruction with permanent side effects from laser therapy. This presents a significant opportunity to design and develop a treatment paradigm that treats a root cause of the disease.

Evidence suggests that diabetic retinopathy is driven by the accumulation of senescent cells that are a direct result of elevated glucose levels in patients with diabetes. These senescent cells are triggered by local stresses in the retina and their accumulation drives the production of the accompanying ocular SASP factors, VEGF and PDGF. Overproduction of VEGF and IL6 leads to ocular inflammation and abnormal blood vessel growth, key signatures of the causes of diabetic retinopathy. Thus, a senolytic approach could target multiple aspects of the underlying causes of diabetic retinopathy and ideally lead to greater therapeutic coverage in a wider range of patients. By eliminating senescent cell accumulation and accompanying SASP factors, one could limit further disease progression, reduce vessel leakage and inflammation, and prevent vision loss.

Primary Open-Angle Glaucoma

Glaucoma is the leading cause of irreversible blindness in the world, with an estimated 60 million cases worldwide. There are approximately 2.7 million people in the United States with glaucoma, with up to 50% of cases undetected as the result of the disease typically being asymptomatic until very late in the course of its progression. This number is projected to reach 6.3 million by 2050 and age is one of the strongest risk factors for the development of the disease. Prevalence in general increases with age, with 2.5% prevalence between the ages of 55 and 64, 5.7% between 65 and 74 and 10.3% over the age of 75.

Primary open-angle glaucoma, or POAG, is a degeneration of nerve cells in the retina characterized by a progressive loss of retinal nerve function. This occurs due to abnormalities in the outflow channels, which are referred to as the trabecular meshwork, or TM, of the front portion of the eye such that removal of aqueous humor, or AH fluid, no longer balances AH production. As a result, intra-ocular pressure, or IOP increases. Before vision loss becomes prominent, POAG is an asymptomatic disease making screening examinations critical for early detection. There are no available therapies that restore lost visual function. With advancing disease, more central vision is lost and, if left untreated, total blindness can occur. There are no curative therapies for glaucoma. Treatment is lifelong and aimed at slowing progression of disease. Even with maximal therapy a proportion of patients will continue to progress, highlighting the significant unmet need in glaucoma treatment.

Current POAG management primarily includes strategies to lower IOP by medical and/or surgical means in an attempt to slow disease progression. IOP is a modifiable risk factor in glaucoma and therefore a target for therapy, yet it is known that IOP is but one of many factors in the complex pathophysiology of POAG. Topical therapeutic options to reduce IOP include prostaglandin analogues, cholinergic agonists, and β -blockers. The major challenge in topical therapy is non-adherence with regimens that require at least daily dosing and are associated with significant tolerability profiles. Adherence rates with topical regimens at one year following prescription were reported to be between 10% and 40%. Compounding this problem is a greater than 40% incidence rate of intolerability issues and that 40% of patients require more than one medication to control IOP to their individual target range. Surgical options to control IOP include laser therapy, surgery to open the outflow channels, and micro-incisional glaucoma surgery. Surgical interventions are associated with greater risks and are in general reserved for more advanced cases.

Thus, POAG remains a high unmet medical need with significant opportunity for a sustained and durable IOP lowering therapy. We believe that POAG is driven by the accumulation of senescent cells and secretion of the SASP in the TM as a result of cellular stress and injury leading to decreased outflow of AH. A reduction in cellularity leading to changes in TM architecture has been described in glaucoma and supports our belief that a senolytic could have prolonged effect on IOP lowering through the clearance of senescent cells and reduction in SASP.

Age-Related Macular Degeneration

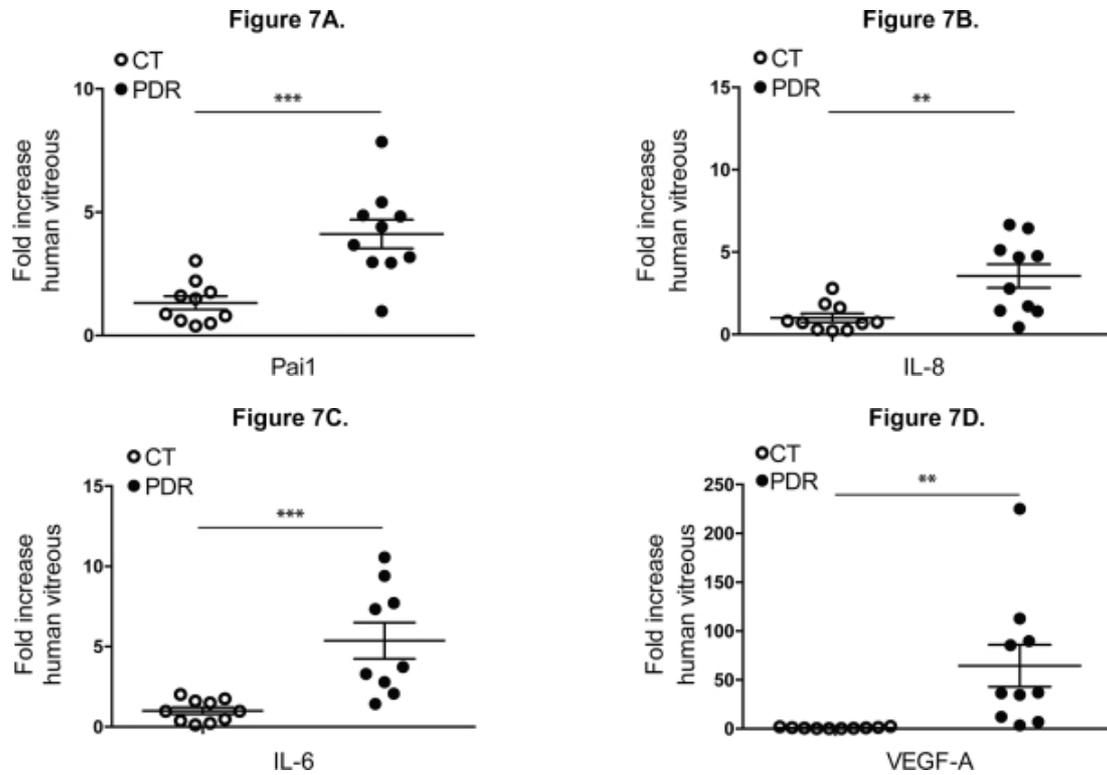
Age-related macular degeneration (AMD) is the leading cause of irreversible vision loss in people over the age of 65 in the United States, where there are currently 2.1 million people with AMD. This number is projected to more than double by 2050, reaching 5.4 million. The prevalence of AMD increases significantly with advancing age, with a prevalence of 2.8% in those aged 65 to 74 years, increasing to 8.7% in those over 75 years. AMD affects central vision, impairing functions such as reading, driving, and facial recognition, and has a major impact on quality of life and the ability to live independently. AMD is defined in 3 stages: "early," in which visual function is affected in the presence of signs of age-related changes in the retina such as drusen and pigmentary changes, "intermediate,"

in which increasing degrees of macular lipid deposition and structural changes are noted, and “late,” in which central vision is severely compromised due to abnormal blood vessel growth (“wet” AMD) or advanced atrophy of the retina (“dry” AMD). It is a complex multifactorial disease, with inflammatory, degenerative, genetic, and vascular factors all contributing to its development and progression. The potential role of senescent cells and the associated SASP in driving the two main presentations of the disease, both wet and dry forms, could prove a unifying mechanism across this complex disorder.

Standard of care for AMD is limited to anti-VEGF therapy to control aspects of the wet form of the disease. Therapeutic options for the dry AMD have proven challenging with no currently approved therapies available to slow progression or reverse disease. Wet AMD has been significantly impacted by anti-VEGF therapy, but, as in diabetic eye disease, this therapeutic is limited by the need for frequent, long-term eye injections, a significant percentage of patients not completing or being non-responsive to anti-VEGF therapy, and the contribution of multiple other mechanisms at play in the disease beyond VEGF. Thus, there is considerable potential for a senolytic approach to impact disease progression and stabilization in AMD via modulation of senescent cell burden and accompanying SASP. SASP factors include molecules that promote abnormal blood vessel growth and inflammation, all of which have been implicated in various stages of AMD. It is our hypothesis that a senolytic medicine could have a meaningful and prolonged impact on the AMD disease state and help restore the cellular microenvironment toward a more normal pre-senescent state.

Evidence for Senescence Burden in Human Disease and Human Biomarker Discovery: Diabetic Retinopathy

We have evaluated the link of senescence and SASP accumulation in proliferative diabetic retinopathy by measuring the senescent cell signature in diseased patient retina tissue. Nuclear staining revealed gross disorganization of the retina tissue's layers with elevated and co-localized levels of p16. Analysis indicated the elevation of ocular SASP factors, Pai1 (Figure 7A), IL-8 (Figure 7B), IL-6 (Figure 7C), and VEGF-A (Figure 7D) in diabetic retinopathy tissue compared to healthy tissue samples. We believe this data is consistent with our hypothesis that senescent cell accumulation and SASP factors play a central role in diabetic retinopathy. We further investigated this hypothesis by evaluating one of our proprietary senolytic molecules in an animal model of diabetic retinopathy.



Figures 7A, 7B, 7C and 7D: Graph to show the elevation of ocular SASP factors, Pai1, IL-8, IL-6, and VEGF-A in diabetic retinopathy tissue samples compared to healthy tissue samples (**p<0.01, ***p<0.001; control (CT); progressive diabetic retinopathy (PDR)).

Evidence for Cellular Senescence Burden in Human Disease and Human Biomarker Discovery: POAG

We also evaluated the presence of senescent cells in the trabecular meshwork (TM) by quantifying the detection of p16 positive cells in control TM versus TM from POAG patients. Analysis of data from more than 11 control and 15 POAG patients showed a significant increase in the number of p16 cells in TMs from POAG patients (Figure 8). We believe this data supports our hypothesis that senescent cell accumulation in the TM provides increased resistance to aqueous humor outflow resulting in increased IOP.

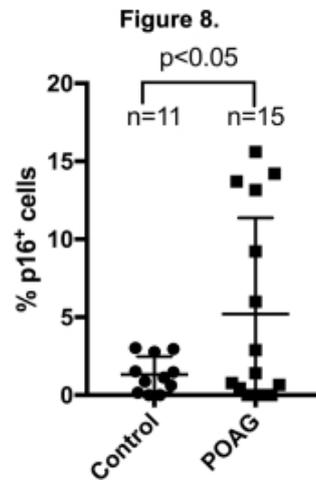


Figure 8. Increased presence of p16 positive cells in TM tissue from POAG patients.

Evidence for Cellular Senescence Burden in Human Disease and Human Biomarker Discovery: AMD

We evaluated the presence of senescent cells in retinal donor tissue from normal and AMD subject samples by IHC staining for p16. An example of a normal subject is seen in Figure 9A, which shows the clear organization of the ganglion cell layer (GCL), inner nuclear layer (INL), outer nuclear layer (ONL), and retinal pigment epithelium (RPE). An example of a subject with AMD is shown in Figure 9B, which shows the disruption of the cell layers associated with the disease pathology and p16 positive cells in the RPE. We believe this data supports our hypothesis that the accumulation of senescent cells is linked to AMD and is seen at the junction between normal retina and AMD affected retina.

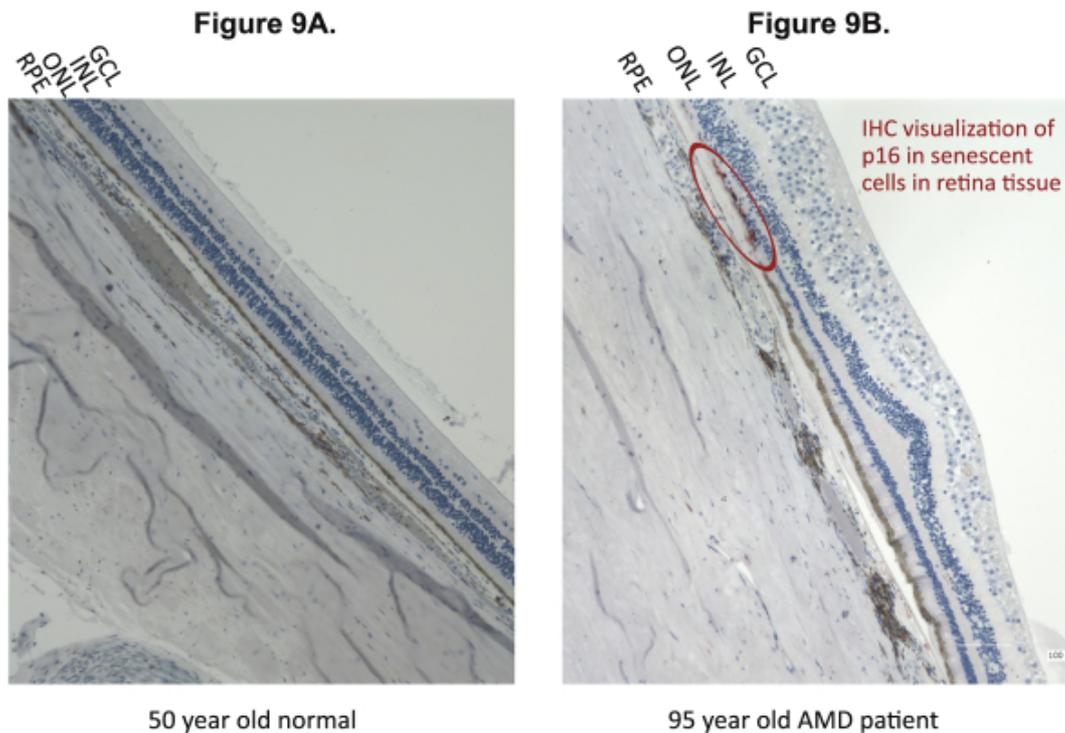


Figure 9: Immunohistochemistry staining for p16 positive cells in diseased retinal tissue of a healthy adult and an older patient with diagnosed AMD. Senescent cells are present in AMD retinas and co-localize with disease histopathology.

Mechanism of Action of UBX1967 (Inhibitors of the Bcl-2 Family)

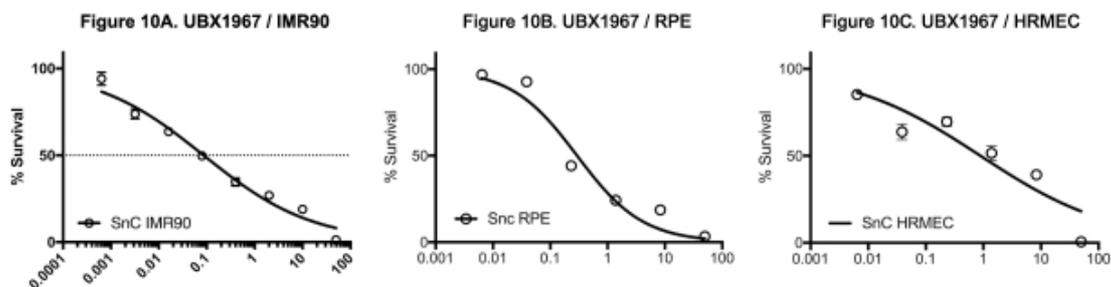
The most advanced senolytic drug candidate in our ophthalmology program, UBX1967, is a potent small molecule inhibitor of specific subtypes within the Bcl-2 family of regulator proteins. The B-cell lymphoma 2 (Bcl-2) gene family encodes more than 20 proteins that regulate the intrinsic apoptosis pathway, and are fundamental to the balance between cell survival and death. Inhibition of certain Bcl-2 family proteins results in cell death. Targeting this pathway has been extensively studied in connection with the search for new oncology medicines.

UBX1967 is currently being evaluated in non-GLP toxicity studies by both intracameral and intravitreal administration. The purpose of the study is to evaluate ocular pharmacokinetics and tolerability. Existing preliminary data supports further advancement of UBX1967 into GLP IND-enabling

ocular toxicology studies. Preliminary results from this study support continued development of UBX1967, and we plan to submit our IND application and commence a clinical study in patients in an ocular indication in the second half of 2019.

In vitro and in vivo Pharmacology Studies with UBX1967

We next conducted an *in vitro* assessment of binding and efficacy to determine the potency of senolytic molecules for the Bcl-2 family protein targets and their potency at eliminating senescent cells. Biochemical assays for Bcl-2, Bcl-XL, and Bcl-W yielded binding affinities in the sub-nM range. In order to assess the activity of UBX1967 on senescent cells, we used a cell-based assay with radiation-induced senescence. Senescent cells were then exposed to increasing concentrations of UBX1967 for 72 hours. In this study, UBX1967 showed potent dose-dependent senolytic activity against IMR90 (Figure 10A), RPE (Figure 10B), and human retinal microvascular endothelial cell, or HRMEC (Figure 10C), cell lines as measured by reduction of senescent cell survival.



Figures 10A, 10B, and 10C. Dose-dependent Induction of apoptosis by UBX1967 (µM) in senescent IMR90 cells, RPE cells, and HRMEC cells.

We next studied the efficacy of UBX1967 in the eye in an *in vivo* model. We employed the mouse oxygen-induced retinopathy (OIR) disease model, which provides an *in vivo* model of retinopathy of prematurity (ROP) and diabetic retinopathy. In this model, UBX1967 showed statistically significant improvement in the degree of neovascularization at all dose levels (Figure 11). Based on these results, we believe a single ocular injection of UBX1967 can functionally inhibit pathogenic angiogenesis and promote vascular repair in this key OIR disease model. We believe that efficacy of UBX1967 in the OIR model is due to elimination of senescent cells and accompanying SASP that propagates senescence in retinal cells and promotes neovascularization of retinal vessels.

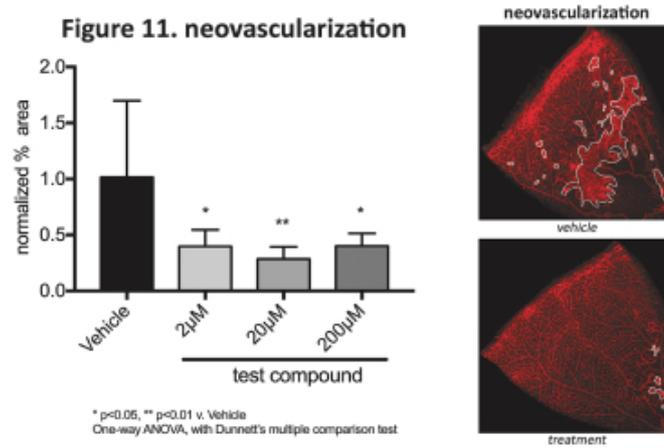
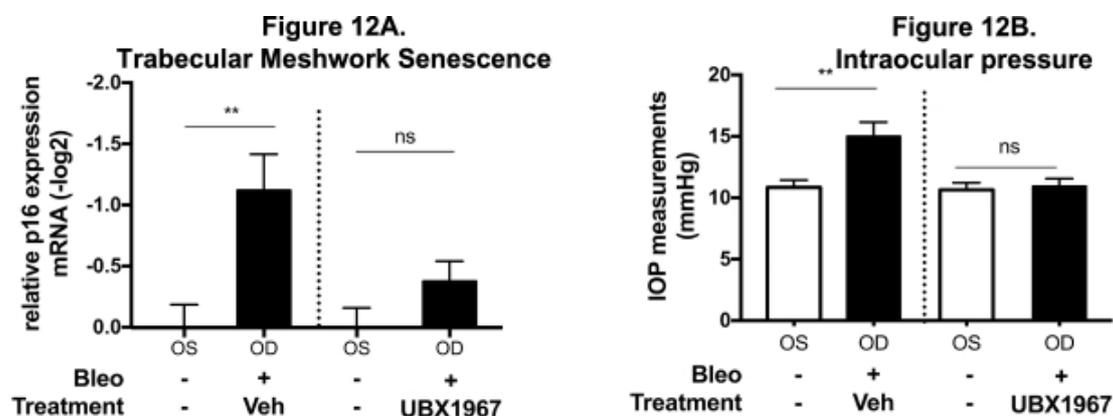


Figure 11. A single administration of UBX1967 reverses neovascularization in the OIR model at all dose levels.

We then studied the *in vivo* efficacy of UBX1967 in a mouse model of elevated intraocular pressure (IOP). An experimental increase in IOP was induced in one eye of a mouse cohort by injection of bleomycin, a DNA damage agent known to cause fibrosis. Within the study design, the left eye (OS) of a single animal was used as a vehicle control (no insult and no treatment) while the right eye (OD) was subjected to insult and treatment with UBX1967. During the study we measured the level of p16 expression (Figure 12A) and intraocular pressure (Figure 12B). Bleomycin induced a significant increase in p16 transcript levels leading to increased measurable IOP relative to the control OS eye. Intervention with UBX1967 normalized p16 transcript and IOP to levels that were non-significant from the OS eye (illustrated in Figure 12B). This study demonstrated that UBX1967 eliminated senescent cells and reduced IOP in this mouse model of efficacy.



Figures 12A and 12B. UBX1967 reverses both bleomycin-induced p16 expression ($p < 0.01$ v. uninjected (OS) control; one-tailed t-test) and intraocular pressure ($p < 0.01$ v. uninjected (OS) control; one-tailed t-test).

UBX1967 is currently being evaluated in non-GLP toxicity studies by both intracameral and intravitreal administration. The purpose of the studies is to evaluate ocular pharmacokinetics and tolerability. Preliminary data supports further advancement of UBX1967 into GLP IND-enabling ocular toxicology studies.

Ophthalmology Development Plan

We plan to submit our IND application and commence a Phase 1 clinical study of UBX1967 for an ophthalmologic indication in the second half of 2019. We are currently evaluating whether this initial Phase 1 clinical study would be focused on diabetic retinopathy, glaucoma, or AMD. In diabetic retinopathy, a Phase 1 clinical study would investigate treatment naïve patients as well those on a background of anti-VEGF standard of care. Primary endpoints are expected to include local ocular and systemic safety and tolerability. Secondary endpoints under consideration include functional outcomes such as best corrected visual acuity (BCVA) and structural outcomes such as retinal thickness and fluid on optical coherence tomography (OCT).

In glaucoma, a Phase 1 study would be expected to primarily assess the safety and tolerability of a single intracameral dose of the senolytic molecule drug candidate. Secondary measures could include the effect on IOP at selected time points throughout the study. Patients could be followed for an extended period of time to assess durability on IOP as measured by the time-to-need for additional IOP lowering agents. In AMD, we will start investigating patients on background anti-VEGF treatment. Like the diabetic retinopathy program, the primary objective of the study is to assess the safety and tolerability of intravitreal administered senolytic molecule. Also, as in diabetic retinopathy, secondary endpoints could include functional outcomes such as BCVA and structural outcomes such as retinal thickness and fluid on OCT.

As part of our continued commitment to our ophthalmology indications, we have also designed a number of alternative senolytic molecules with differing mechanisms of action. We are also focused on the physiochemical properties of our small molecules and are developing approaches to optimize solubility, permeability, and pharmacokinetic parameters to manage ocular absorption, distribution, metabolism, and organ residency duration.

Pulmonary Programs

Unmet Need and Therapeutic Rationale

Data from the World Health Organization from 2015 shows that respiratory diseases make up three of the top five causes of death worldwide, several of which are prevalent in the elderly. In addition, the National Heart, Lung, and Blood Institute of the US National Institutes of Health published a white paper in 2017 highlighting the association of age with lung disease, including idiopathic pulmonary fibrosis, or IPF, and COPD, and underscoring the potential for understanding and developing therapeutics related to aging biology.

Historically, therapies for these diseases have been non-specific in their mode of action, whether anti-inflammatory (e.g., corticosteroids) or immunosuppressive (e.g., cyclophosphamide) or purely supportive in nature (e.g., supplemental oxygen). Increasingly, new therapies have been developed that are more targeted to specific pathogenic factors, such as anti-IL-5 antibody (mepolizumab) in COPD and tyrosine kinase inhibitor (nintedanib) in IPF. In contrast, the goal of senolytics is not just to interrupt specific pathogenic pathways but specifically to target senescent cells and inhibit multiple pathogenic pathways.

We initiated an active discovery and development program in IPF based on a series of observations. These observations include the aggressive nature of the disease and the data suggesting a potentially strong association between IPF and senescence.

IPF is a severely debilitating fibrotic disease of the lung that primarily affects older adults and often leads to a progressive worsening of lung function, eventually leading to respiratory failure or lung transplantation. Increasing organ fibrosis causes a restriction of ventilation that symptomatically is perceived as a constant state of suffocation. While the course of the disease is variable, the prognosis is uniformly poor with a median survival of about three to four years after diagnosis. In the United States, it is estimated to affect up to 90,000 people, with approximately 40,000 people dying each year. While the overall prevalence is not high, it increases substantially in people over the age of 65. The hypoxemia resulting from IPF ultimately necessitates the use of supplemental oxygen. Supplemental oxygen relieves dyspnea and improves functional status, and may play a role in ameliorating associated comorbidities such as secondary pulmonary hypertension. However, the use of supplemental oxygen requires equipment for administration that can place significant burden on patients, limiting their mobility and profoundly reducing quality of life.

Beyond the use of oxygen, there are two marketed products available for the treatment of IPF, nintedanib and pirfenidone, that are recommended by the American Thoracic Society. In clinical studies, these anti-fibrotic agents slowed the rate of decline in lung function over 52 weeks but did not show a significant effect on survival or disease exacerbations. IPF remains a fatal disease with the need for additional effective therapies that treat the underlying lung fibrosis to improve quality of life and survival.

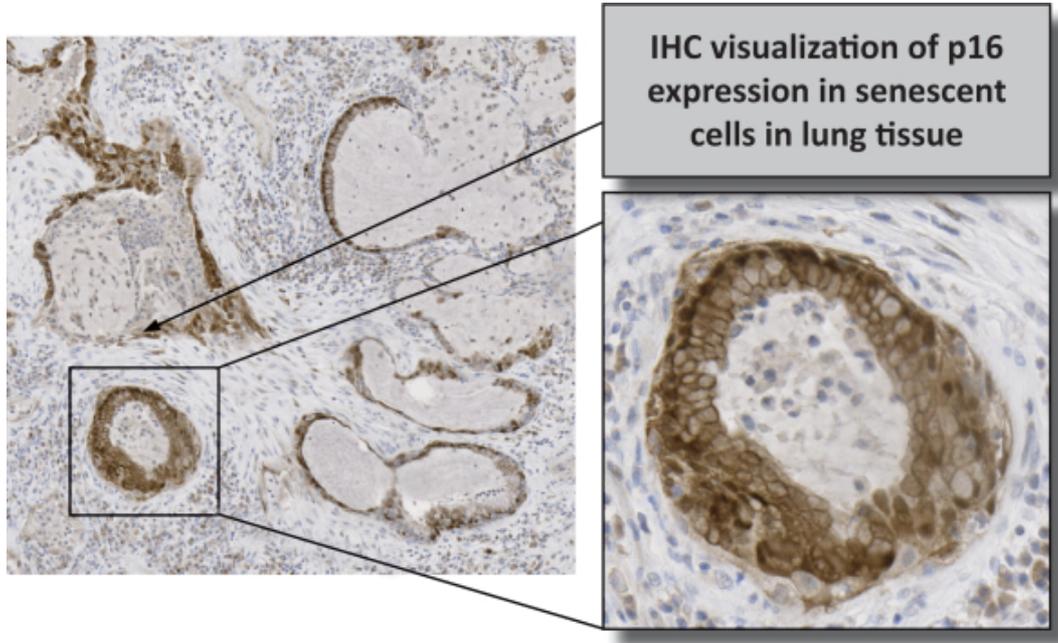
Resident cell types within the lung, including epithelial cells and macrophages, have been shown to become senescent. Accumulation of these senescent cells followed by SASP secretion may drive IPF disease exacerbation and progression. In the case of senescent lung cells, we propose that the

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SASP is enriched with pro-fibrotic factors such as connective tissue growth factors CTGF and TGF- β . We believe that excessive and prolonged exposure to these factors leads to remodeling of the lung, expansion of lung matrix, and fibrosis, all of which deteriorate function and ultimately result in death. Furthermore, these factors may also play a role in suppressing the endogenous capacity of the lung to demonstrate regenerative capacity that has been shown in patients post-removal of lung tissue as well as during recuperation of those patients who survive Acute Respiratory Distress Syndrome, an injury that severely damages the lung.

Evidence for Cellular Senescence Burden in Human Disease and Human Biomarker Discovery

Our exploratory work in IPF resulted in the identification of senescent cells associated with areas of active disease in lung tissue taken from patients with IPF. Immunohistochemistry staining for p16 in human IPF lung tissue demonstrated the presence of senescent cells as shown below. These cells were predominantly epithelial in origin and located in areas of fibrosis and at the leading edge of the disease. These sites are likely amendable to access by inhalation therapeutics.



Importantly, the number of p16 positive cells was greater across all levels of fibrosis (Figure 13) relative to that of normal tissue. Additionally, there was a strong relationship between the extent of disease in a given area and the percentage of senescent cells present in those areas. At its peak, approximately 30% of the total cellularity in an affected region is comprised of senescent cells. These data support the hypothesis that elimination of senescent cells and its associated SASP could halt progressive fibrosis and potentially allow for restoration of pulmonary function. This further supports our hypothesis that IPF is related to SASP proliferation and suggests that treatment with senolytic molecules has the potential to treat the root cause of disease. We further studied our hypothesis regarding cellular senescence accumulation and their accompanying SASP by investigating the cellular senescence signature in a key animal model of lung fibrosis.

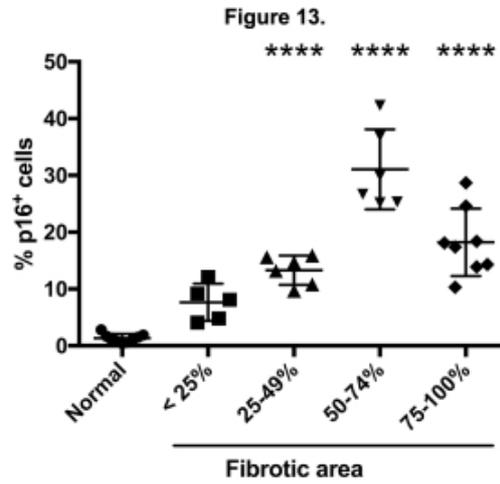
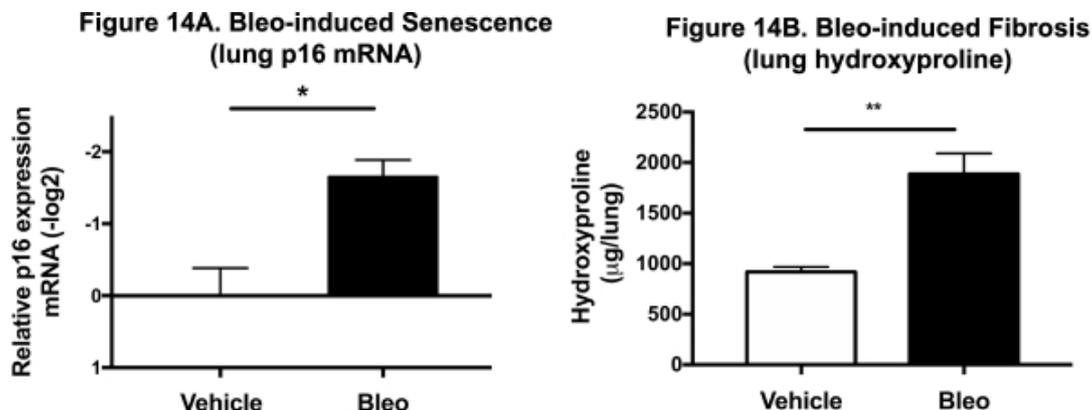


Figure 13. Increased presence of p16 positive cells in human lung tissue with significant fibrotic area indicative of a significant role in disease progression (**** $p < 0.0001$ for group difference among means by one-way ANOVA).

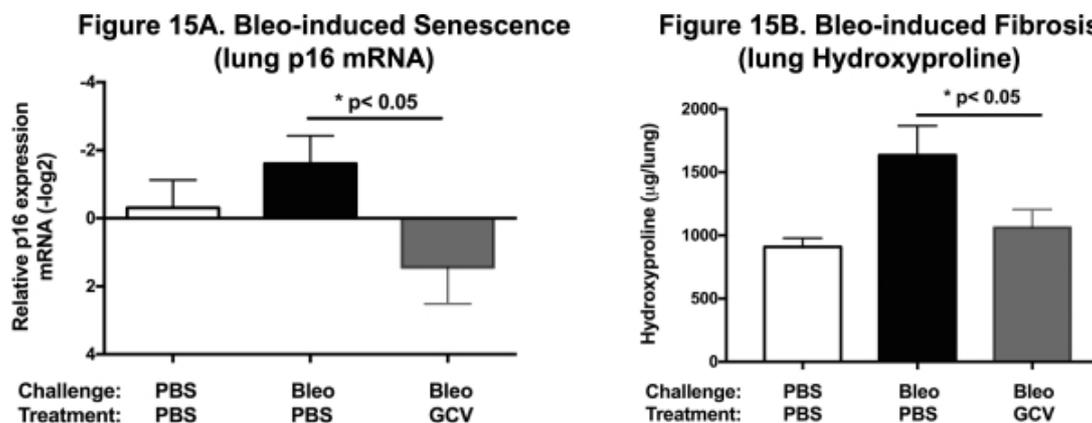
Preclinical Disease Model of Lung Fibrosis

Preclinical studies were conducted to understand the involvement of senescent cells in preclinical models of lung fibrosis. Results from the bleomycin model of lung fibrosis in the mouse were most compelling. Evaluation of p16 in the intra-tracheal bleomycin model of lung fibrosis showed an increase in senescent cell levels (Figure 14A) and the degree of fibrosis, as judged by the well-established hydroxyproline biomarker of fibrosis (Figure 14B). IHC staining data from this study also showed increasing levels of type 1 and 2 collagens indicative of new areas of fibrotic tissue growth. We conclude that senescent cells drive the lung fibrosis in this mouse model.



Figures 14A and 14B. Induction of p16 expression and fibrosis in murine lungs by bleomycin (Bleo) intratracheal instillation (* $p < 0.05$ and ** $p < 0.001$ using Welch's t-test between vehicle and Bleo).

We next evaluated if eliminating senescent cells reduced fibrosis in this mouse model utilizing a p16-3MR transgenic mouse model. The p16-3MR mouse is a transgenic mouse model designed to detect and eliminate senescent cells through the administration of ganciclovir (GCV). The data from this transgenic mouse model of the elimination of p16 positive cells shows a trend towards the reduction of both senescent cell presence (Figure 15A) and hydroxyproline tissue content (Figure 15B). The early preclinical and human disease tissue evidence suggests that administration of senolytic molecules has the potential to treat the root cause of cellular senescence-driven lung fibrosis diseases.



Figures 15A and 15B. Elimination of p16 positive cells fibrosis (* $p < 0.05$ using Welch's t-test between Bleo/phosphate buffered saline (PBS) V Bleo/GCV) using ganciclovir in the 3MR genetically engineered mouse model reduces fibrosis (* $p < 0.05$ using unpaired t-test between Bleo/PBS V Bleo/GCV).

Development Plan in Pulmonary Diseases

We plan to submit an IND application to support a Phase 1 clinical study of a senolytic molecule administered by the inhaled route in pulmonary indications. While IPF is currently our lead indication, we are also pursuing inhaled administration opportunities in other lung diseases, such as systemic sclerosis with pulmonary manifestations and hypersensitivity pneumonitis, and in obstructive diseases such as COPD.

Our integrated pulmonary development plan will utilize patient safety data and pharmacological dose responses from the initial clinical study to accelerate the design of next-generation clinical studies in other pulmonary diseases. The Phase 1 program in any of these diseases would closely parallel our work in IPF and would take advantage of any learnings regarding pharmacokinetics following inhaled administration as well as biomarker and imaging responses. This approach should allow us to lay more groundwork for a broader range of pulmonary diseases once we demonstrate the safety, tolerability, and pharmacodynamics of inhaled senolytic administration.

Research and Discovery – Other Anti-Aging Programs

We have secured our lead position in the discovery and development of senolytic medicines through our commitment to fundamental biological research and translational science. We have partnered with key academics and thought leaders to pursue areas of emerging aging science. We continue to recruit top tier scientists with the desire and drive to understand, uncover, and invent. We invest a significant proportion of our resources and effort in emerging fields of aging science in order to transition fundamental scientific observations to the design and development of new therapeutics. We believe that we have built the internal research capabilities and scientific network to continue to be at the forefront of extending human healthspan.

Strategy for Systemically Administered Senolytic Medicines

In addition to our discovery and development of locally administered senolytic medicines for the treatment of local disease, we are similarly investigating the systemic administration of senolytic medicines for the treatment of senescent cell-driven disease within specific organs, tissues, and cell types.

Our first approach to systemic administration is to create a senolytic medicine that is designed to target a specific organ or even specific tissue within that organ. Such a senolytic medicine would selectively eliminate senescent cells within a tissue and reduce the SASP within that tissue. By considering therapeutic areas with unmet need and where there is strong evidence for the role of senescent cells driving disease, we have evaluated both hepatic and renal disease.

Our long-term goal is to use the principles that we establish for the design of systemically administered, targeted senolytic medicines to produce clinical candidates to eliminate senescent cells throughout the body. This could draw on ideas from immunology, senolytic viruses, vaccines, CAR-T type approaches or antibody drug conjugates.

Circulating Youth Factors (Klotho Protein)

We are also evaluating the administration of circulating youth factors in age-associated diseases. Our lead discovery effort in circulating youth factors is focused on the α -Klotho protein. First discovered in 1997, the *klotho* gene was identified in mice as an “aging-suppressor” that accelerates aging when disrupted and extends lifespan when overexpressed. The α -Klotho protein is a circulating hormone primarily produced in the kidneys and choroid plexus of the brain and was recently

discovered to delay and suppress the deleterious effects of aging on multiple organs, including the brain. Circulating levels of a-Klotho protein gradually decline with age, chronic stress, cognitive impairment, and neurodegenerative disease.

A small percentage of the population possesses naturally elevated a-Klotho levels as a result of the a-Klotho-VS heterozygous genetic variation. a-Klotho-VS heterozygosity is associated with extended healthspan, enhanced cognition, and less age-associated cognitive decline. Elevated a-Klotho levels are also associated with greater dorsolateral prefrontal cortex volume and improved connectivity between cortical regions, which in turn correlates with better executive function in normal aging humans. As this brain region is especially susceptible to shrinkage with age and vulnerable in several psychiatric and neurological disorders, its protection may provide clinical benefit in both normal aging and disease.

In 2014, Dena Dubal, of the University of California, San Francisco, and one of our scientific collaborators, first demonstrated that genetically elevated a-Klotho levels significantly enhance cognitive performance and neural resilience independent of age in normal and human amyloid precursor protein mouse models of neurodegenerative disease related to Alzheimer's Disease. a-Klotho is hypothesized to optimize synaptic neurotransmission of NMDA receptors in the brain, effectively combatting the cognitive and synaptic deficits, despite high levels of pathogenic Ab, tau, and phosphorylated tau proteins associated with Alzheimer's Disease.

We are exploring the utility of a-Klotho protein in a variety of preclinical animal models, with the intent of identifying a drug candidate.

Reversing Age-Associated Loss of Mitochondrial Function

Mitochondria are the power plants of eukaryotic cells, providing over 90% of the energy required for life. With the exception of one recently identified organism, mitochondria are essential for all eukaryotic life. Mitochondria enable the flow of electrons from the high energy carbon-to-carbon bonds found in energy-rich food molecules (such as glucose) to molecular oxygen. This "downhill flow" of potential energy from carbon-to-carbon bonds to molecular oxygen provides over 90% of energy used by eukaryotic cells to drive life.

While the mitochondrial genome is small, mutations in it accumulate as we age and have profound effects. Because such mutations result in the diminished production of functional mitochondrial proteins, mitochondria from older organisms produce less energy than mitochondria from younger organisms. Mitochondrial mutations contribute to diseases such as cardiomyopathy, myopathy, dementia, optic atrophy, infertility, fibrosis, Parkinson's Disease, Alzheimer's disease, amyotrophic lateral sclerosis, Huntington's disease, and Duchenne muscular dystrophy. We are in the early stages of developing a technology to reverse age-associated declines in mitochondrial function.

Manufacturing

Our success as a company will depend on our ability to deliver reliable, high-quality preclinical and clinical drug supply. As we mature as a company and approach commercial stage operations, securing reliable high-quality commercial drug supply will be critical. 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 drug 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 purchase order programs for our drug candidates with Material Service Agreements in place, and we intend to establish long-term supply agreements in the future. We believe our current manufacturers have the scale, the systems, and the experience to supply all planned clinical studies.

We do not currently require commercial manufacturing capabilities. Should our needs change, we will likely 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.

Commercialization Plan

We do not currently, nor do we expect to have in the near term, any FDA-approved drugs in our portfolio. Therefore, we have not yet built an infrastructure for sales, marketing, or commercial distribution.

Should any of our drug candidates be approved for commercialization, we intend to develop a plan to commercialize them in the United States and other key markets, through an internal infrastructure or an external partnership.

Competition

The biotechnology and pharmaceutical industries, including the field of research in aging, are typically rife with rapid technological developments, bold competition, and dependence on intellectual property. Like any biotechnology company, we face competition from multiple sources, including large or established pharmaceutical, biotechnology, and wellness companies, academic research institutions, government agencies, and private institutions. We believe our drug candidates will prevail amid the competitive landscape through their efficacy, safety, administration methods, cost, public and institutional demand, intellectual property portfolio, and treatment of the root cause of many age-associated diseases.

We are aware of other companies seeking to develop treatments to prevent or treat aging-associated diseases through various biological pathways, including Calico and resTORbio. Calico has not yet disclosed any pipeline candidates or mechanisms of interest, and resTORbio is developing candidates targeting TORC1. Hence, we believe that we currently have the most advanced program addressing cellular senescence.

Our drug candidates are likely to compete against current therapies from a wide range of companies and technologies, including therapies for our lead indications:

- Musculoskeletal diseases, including osteoarthritis: current standard of care treatments (though not disease-modifying and focused on symptom management) include anti-inflammatory drugs (Ibuprofen, Diclofenac, Celecoxib), analgesic pain relief (Acetaminophen), or narcotic pain relief (Tramadol).

- Ophthalmology diseases, including diabetic retinopathy: potentially disease-modifying therapeutics are being sold and developed by several pharmaceutical and biotechnology companies, including Roche/Genentech and Regeneron.
- Pulmonary disease, including idiopathic pulmonary fibrosis: therapeutics are being sold and developed by several pharmaceutical and biotechnology companies and academic institutions, including Genentech, Boehringer-Ingelheim, Cytokinetics and Mallinckrodt, and are in various stages of clinical studies.

Many of our competitors, either alone or with strategic partners, have substantially greater financial, technical, and human resources than we do. Accordingly, our competitors may be more successful in obtaining approval for treatments and achieving widespread market acceptance, rendering our treatments obsolete or non-competitive. Accelerated merger and acquisition activity in the biotechnology and biopharmaceutical industries may result in even more resources concentrated among a smaller number of our competitors. These companies also compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical study sites, patient registration for clinical studies, and 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. Our commercial opportunity could be substantially limited in the event that our competitors develop and commercialize products that are more effective, safer, more tolerable, more convenient, or less expensive than our comparable products. In geographies that are critical to our commercial success, competitors may also obtain regulatory approvals before us, resulting in our competitors building a strong market position in advance of our products' entry. We believe the factors determining the success of our programs will be the efficacy, safety, and convenience of our drug candidates.

Intellectual Property

Our success depends in large part upon our ability to obtain and maintain proprietary protection for our products and technologies and to operate without infringing the proprietary rights of others. Our policy is to protect our proprietary position by, among other methods, filing U.S. and foreign patent applications that relate to our proprietary technologies, inventions and improvements that are important to the development and implementation of our business. We also rely on trademarks, trade secrets, know-how, continuing technological innovation and licensing opportunities to develop and maintain our proprietary position.

Patent Portfolio

Our patent portfolio consists of a combination of issued and allowed patents and pending patent applications that are owned or co-owned by us and/or licensed to us from third parties. The majority of these patents and applications cover our cellular senescence program, and others pertain to our programs that target aging mechanisms beyond cellular senescence, including the administration of circulating youth factors and enhancement of mitochondrial health. As of April 2018, we owned, co-own, or have an exclusive license in certain fields of use to over 80 patents and pending applications in the United States and foreign jurisdictions. This portfolio includes five issued U.S. patents, over 30 pending U.S. applications (including 14 provisional applications), and over 30 granted or pending applications in foreign jurisdictions.

Our cellular senescence patent portfolio includes patents and patent applications that are directed to our senolytic agents and programs, including our lead molecules UBX0101 and UBX1967, related molecules, and other compounds. We also have an option to take an exclusive license to the issued patents and patent applications covering the composition of matter of UBX1967, as well as other Bcl-2 inhibitor compounds under our compound library and option agreement with Ascentage. Our cellular

senescence patent portfolio includes patents and patent applications directed to compositions of matter, use for treating age-related conditions, and methods of manufacture.

Our patent portfolio, including patents and applications that we have exclusively optioned, as well as those we own, co-own or have exclusively licensed, directed to our programs that target aging mechanisms beyond cellular senescence, including the administration of circulating youth factors and enhancement of mitochondrial health, includes five pending U.S. patent applications and six pending patent applications in foreign jurisdictions.

In general, patents have a term of 20 years from the earliest claimed non-provisional priority date. Several of our issued U.S. and foreign patents that relate to UBX0101 and UBX1967 are scheduled to expire between approximately 2032 and 2035. The patent term may be extendible by up to five years in certain countries by means of patent term extension, depending on the regulatory pathway and the remaining term upon marketing approval. Certain other patents and patent applications directed to our cellular senescence patent portfolio, if they were to issue, may have later expiration dates.

Osteoarthritis Program

We co-own two patent families directed to the treatment of senescence-related diseases, including osteoarthritis, by removal of senescent cells in or around the site of the disease. The other co-owners of this patent family are the Buck Institute for Research on Aging, the Johns Hopkins University, and Mayo Clinic, each of which has granted us an exclusive license which extends to the treatment of senescence-related diseases in therapeutic areas. This patent family includes two issued U.S. patents directed toward the use of UBX0101 for the treatment of osteoarthritis. One of these issued U.S. patents covers a unit dose of a pharmaceutical composition as a composition of matter, and the other covers a method of treatment. Applications are also pending in the following 14 foreign jurisdictions: Australia, Brazil, Canada, China, Europe, Hong Kong, Israel, Japan, Korea, Mexico, New Zealand, Russia, Singapore, and South Africa. Patents that issue from this family are expected to expire in 2035, excluding any patent term adjustments or extensions.

We also own a patent family directed to a scalable method of chiral synthesis of UBX0101, which includes one pending U.S. patent application and one international application filed under the patent cooperation treaty, or PCT. Future U.S. and foreign patents issued from this family are expected to expire in 2037, excluding any patent term adjustments and patent term extensions.

We additionally own six composition of matter patent applications directed to alternative drug candidates for osteoarthritis, including five pending provisional U.S. applications (which also cover aspects of our ophthalmology and pulmonary programs) and one pending international application.

Ophthalmology Program

We have an exclusive option to enter a license with Ascentage Pharma Group Corp. Ltd., or Ascentage, to a family of issued composition of matter patents and pending composition of matter applications directed to chemical entities including our lead drug candidate, UBX1967. Our license would be exclusive in all fields outside of oncology. Patents in this family have been granted in the U.S., Korea, New Zealand, and South Africa, and are pending in Australia, Canada, China, Europe, India, Japan, and Singapore. Future U.S. and foreign patents issued from this family are expected to expire in 2032, excluding any patent term adjustments or extensions.

We co-own two families of pending patent applications directed to the use of Bcl-2 inhibitors, including UBX1967 and related chemical entities for the treatment of eye disease, including diabetic retinopathy, age-related macular degeneration, and glaucoma (which also cover aspects of our

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osteoarthritis and pulmonary programs). One of these patent families is co-owned by the Buck Institute for Research on Aging and us. The patents within the other family that are relevant for ophthalmology indications are co-owned by the Buck Institute for Research on Aging, the Mayo Clinic and us. We have exclusive licenses from each of the Buck Institute for Research on Aging and the Mayo Clinic to these patent families in the field of senescence. Applications in both of these families are pending in the U.S., Australia, Canada, China, Europe, and Japan. Future U.S. and foreign patents issued from these families are expected to expire in 2035 and 2036, excluding any patent term adjustments and patent term extensions.

We also own composition of matter patent applications directed to alternative drug candidates for the treatment of eye disease, including five pending provisional applications (which also cover aspects of our osteoarthritis and pulmonary programs).

Pulmonary Program

We are currently testing a number of drug candidates for the treatment of pulmonary disease. Several of these compounds are covered as compositions of matter by the issued patents and pending applications that are included in the patent family we have exclusively optioned from Ascentage.

We also co-own two families of pending patent applications directed to the use of these compounds and other Bcl-2 inhibitors for the treatment of pulmonary disease, including IPF and COPD (which also cover aspects of our osteoarthritis and ophthalmology programs). One of these patent families is co-owned by the Buck Institute for Research on Aging and us. The patents within the other family that are relevant for pulmonary indications are co-owned by the Buck Institute for Research on Aging, the Mayo Clinic and us. We have exclusive licenses from each of the Buck Institute for Research on Aging and the Mayo Clinic to these patent families in the field of senescence. Patent applications in both these families are pending in the U.S., Australia, Canada, China, Europe, and Japan. Future U.S. and foreign patents issued from these families are expected to expire in 2035 and 2036, excluding any patent term adjustments and patent term extensions.

We additionally own composition of matter patent applications directed to the use of alternative drug candidates for the treatment of lung disease, including five pending provisional applications (which also cover aspects of our osteoarthritis and ophthalmology programs). Future U.S. and foreign patents issued from this family are expected to expire in 2038, excluding any patent term adjustments and patent term extensions.

Other Anti-Aging Programs

We have an option to enter into an exclusive license with The Regents of the University of California for a patent family directed to methods of treatment and the use of klotho protein for the development of human therapeutics. Patent applications in this family are pending in the U.S. and six foreign jurisdictions. Future U.S. and foreign patents issued from this family are expected to expire in 2036, excluding any patent term adjustments and patent term extensions.

We also own three provisional patents and co-own with the Buck Institute for Research on Aging one provisional patents directed toward the enhancement of mitochondrial health.

Other Intellectual Property

Our continuing research and development, technical know-how, and contractual arrangements supplement our intellectual property protection to maintain our competitive position. Our policy is to require inventors who are identified on any Company-owned patent applications to assign rights to us.

We also have confidentiality agreements with our employees, consultants, and other advisors to protect our proprietary information. Our policy is to require third parties that receive material confidential information to enter into confidentiality agreements with us.

We also protect our brand through procurement of trademark rights. As of March 1, 2018, the mark UNITY BIOTECHNOLOGY® is registered in both the United States and the European Union. In order to supplement protection of our brand, we have also registered several internet domain names.

Government Regulation

Government authorities in the United States (including federal, state and local authorities) and in other countries, extensively regulate, among other things, the manufacturing, research and clinical development, marketing, labeling and packaging, storage, distribution, post-approval monitoring and reporting, advertising and promotion, pricing, and export and import of pharmaceutical products, such as those we are developing. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources.

U.S. Government Regulation

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, and its implementing regulations, and biologics under the FDCA and the Public Health Service Act, or PHSA, and its implementing regulations. FDA approval is required before any new unapproved drug or dosage form, including a new use of a previously approved drug, can be marketed in the United States. Drugs and biologics are also subject to other federal, state and local statutes and regulations. If we fail to comply with applicable FDA or other requirements at any time during the drug development process, clinical testing, the approval process or after approval, we may become subject to administrative or judicial sanctions. These sanctions could include the FDA's refusal to approve pending applications, license suspension or revocation, withdrawal of an approval, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties or criminal prosecution.

The process required by the FDA before drug candidates may be marketed in the United States generally involves the following:

- completion of extensive preclinical laboratory tests and preclinical animal studies, all performed in accordance with the Good Laboratory Practices, or GLP, regulations;
- submission to the FDA of an IND, which must become effective before human clinical studies may begin;
- approval by an independent IRB or ethics committee representing each clinical site before each clinical study may be initiated;
- performance of adequate and well-controlled human clinical studies to establish the safety and efficacy, or in the case of a biologic, the safety, purity and potency, of the drug candidate for each proposed indication;
- preparation of and submission to the FDA of a new drug application, or NDA, or biologics license application, or BLA, after completion of all pivotal clinical studies;
- review of the product application by an FDA advisory committee, where appropriate and if applicable;
- a determination by the FDA within 60 days of its receipt of an NDA or BLA to file the application for review;

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- satisfactory completion of an FDA pre-approval inspection of the manufacturing facilities where the drug candidate is produced to assess compliance with current Good Manufacturing Practices, or cGMP; and
- FDA review and approval of an NDA or BLA prior to any commercial marketing or sale of the drug or biologic in the United States.

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 human studies. 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 new drug. An IND must become effective before human clinical studies may begin. An IND will automatically become effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions related to the proposed clinical studies. 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 clinical studies can begin. Accordingly, submission of an IND may or may not result in the FDA allowing clinical studies to commence.

Clinical Studies

Clinical studies involve the administration of the investigational new drug to human subjects under the supervision of qualified investigators in accordance with Good Clinical Practice regulations, or GCPs, which include the requirement that all research subjects provide their informed consent for their participation in any clinical study. Clinical studies are conducted under protocols detailing, among other things, the objectives of the study, the parameters to be used in monitoring safety and the efficacy criteria to be evaluated. A protocol for each clinical study and any subsequent protocol amendments must be submitted to the FDA as part of the IND. Additionally, approval must also be obtained from each clinical study site's IRB before the studies may be initiated, and the IRB must monitor the study until completed. There are also requirements governing the reporting of ongoing clinical studies and clinical study results to public registries.

The clinical investigation of a drug or biologic is generally divided into three or four phases. Although the phases are usually conducted sequentially, they may overlap or be combined.

- *Phase 1.* The drug or biologic is initially introduced into healthy human subjects or patients with the target disease or condition. These studies are designed to evaluate the safety, dosage tolerance, metabolism and pharmacologic actions of the investigational new drug in humans, the side effects associated with increasing doses, and if possible, to gain early evidence on effectiveness.
- *Phase 2.* The drug or biologic is administered to a limited patient population to evaluate dosage tolerance and optimal dosage, identify possible adverse side effects and safety risks and preliminarily evaluate efficacy.
- *Phase 3.* The drug or biologic is administered to an expanded patient population, generally at geographically dispersed clinical study sites to generate enough data to statistically evaluate dosage, clinical effectiveness and safety, to establish the overall benefit-risk relationship of the investigational product and to provide an adequate basis for product approval.
- *Phase 4.* In some cases, the FDA may condition approval of an NDA or BLA for a drug candidate on the sponsor's agreement to conduct additional clinical studies after approval. In other cases, a sponsor may voluntarily conduct additional clinical studies after approval to gain more information about the drug. Such post-approval studies are typically referred to as Phase 4 clinical studies.

A pivotal study is a clinical study that adequately meets regulatory agency requirements for the evaluation of a drug candidate's efficacy and safety such that it can be used to justify the approval of the product. Generally, pivotal studies are Phase 3 studies, but the FDA may accept results from Phase 2 studies if the study design provides a well-controlled and reliable assessment of clinical benefit, particularly in situations where there is an unmet medical need and the results are sufficiently robust.

The FDA, the IRB or the clinical study sponsor may suspend or terminate a clinical study at any time on various grounds, including a finding that the research subjects are being exposed to an unacceptable health risk. Additionally, some clinical studies are overseen by an independent group of qualified experts organized by the clinical study sponsor, known as a data safety monitoring board or committee. This group provides authorization for whether or not a study may move forward at designated check points based on access to certain data from the study. We may also suspend or terminate a clinical study based on evolving business objectives and/or competitive climate.

Submission of an NDA or BLA to the FDA

Assuming successful completion of all required testing in accordance with all applicable regulatory requirements, detailed investigational new drug product information is submitted to the FDA in the form of an NDA or BLA requesting approval to market the product for one or more indications. Under federal law, the submission of most NDAs and BLAs is subject to a substantial application user fee. Applications for orphan drug products are exempted from the NDA and BLA application user fees.

An NDA or BLA must include all relevant data available from pertinent preclinical and clinical studies, 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 studies intended to test the safety and effectiveness of a use of a product, or from a number of alternative sources, including studies initiated by investigators. To support marketing approval, the data submitted must be sufficient in quality and quantity to establish the safety and effectiveness of the investigational product to the satisfaction of the FDA.

Once an NDA or BLA has been submitted, the FDA's goal is to review the application within ten months after it accepts the application for filing, or, if the application relates to an unmet medical need in a serious or life-threatening indication, six months after the FDA accepts the application for filing. The review process is often significantly extended by FDA requests for additional information or clarification.

Before approving an NDA or BLA, the FDA typically will 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 cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA or BLA, the FDA will typically inspect one or more clinical sites to assure compliance with GCP.

The FDA is required to refer an application for a novel drug or biologic to an advisory committee or explain why such referral was not made. An advisory committee is a panel of independent experts, including clinicians and other scientific experts, that reviews, evaluates and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions and typically follows such recommendations.

The FDA's Decision on an NDA or BLA

After the FDA evaluates the NDA or BLA and conducts inspections of manufacturing facilities, it may issue an approval letter or a Complete Response Letter. An approval letter authorizes commercial marketing of the drug or biologic with specific prescribing information for specific indications. A Complete Response Letter indicates that the review cycle of the application is complete and the application is not ready for approval. A Complete Response Letter may require additional clinical data and/or an additional pivotal Phase 3 clinical study(ies), and/or other significant, expensive and time-consuming requirements related to clinical studies, preclinical studies or manufacturing. Even if such additional information is submitted, the FDA may ultimately decide that the NDA or BLA does not satisfy the criteria for approval. The FDA could also approve the NDA or BLA with a Risk Evaluation and Mitigation Strategy, or REMS, to mitigate risks, which 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, development of adequate controls and specifications or a commitment to conduct one or more post-market studies or clinical studies. Such post-market testing may include Phase 4 clinical studies and surveillance to further assess and monitor the product's safety and effectiveness after commercialization. Also, new government requirements, including those resulting from new legislation, may be established, or the FDA's policies may change, which could delay or prevent regulatory approval of our products under development.

Expedited Review and Accelerated Approval Programs

The FDA has various programs, including fast track designation, breakthrough therapy designation, accelerated approval, and priority review, that are intended to expedite the development and approval of new drugs and biologics that address unmet medical needs in the treatment of serious or life-threatening diseases and conditions. To be eligible for a fast track designation, the FDA must determine, based on the request of a sponsor, that a product is intended to treat a serious or life-threatening disease or condition and demonstrates the potential to address an unmet medical need. The FDA may review sections of the NDA for a fast-track product on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the NDA, the FDA agrees to accept sections of the NDA and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the NDA.

The FDA may give a priority review designation to drugs that offer major advances in treatment, or provide a treatment where no adequate therapy exists. A priority review means that the goal for the FDA to review an application is six months, rather than the standard review of ten months under current. These six and 10 month review periods are measured from the "filing" date rather than the receipt date for NDAs for new molecular entities, which typically adds approximately two months to the timeline for review and decision from the date of submission. Most products that are eligible for fast-track designation are also likely to be considered appropriate to receive a priority review.

In addition, products studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit over existing treatments may be eligible for accelerated approval and may be approved on the basis of adequate and well-controlled clinical studies establishing that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or on 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. As a condition of approval, the FDA may require a sponsor of a drug receiving accelerated approval to perform post-marketing studies to verify and describe the

predicted effect on irreversible morbidity or mortality or other clinical endpoint, and the drug may be subject to accelerated withdrawal procedures.

Moreover, under the provisions of the Food and Drug Administration Safety and Innovation Act, or FDASIA, passed in July 2012, a sponsor can request designation of a drug candidate as a “breakthrough therapy.” 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 product may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. Drugs designated as breakthrough therapies are also eligible for the other expedited review and approval programs, including accelerated approval, priority review, and fast-track designation. The FDA must take certain actions, such as holding timely meetings and providing advice, intended to expedite the development and review of an application for approval of a breakthrough therapy.

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.

Post-Approval Requirements

Drugs and biologics marketed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion and reporting of adverse experiences with 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 user fee requirements.

Manufacturers are subject to periodic unannounced inspections by the FDA and state agencies for compliance with cGMP requirements. 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 and documentation 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.

Discovery of previously unknown problems with a product or the failure to comply with applicable requirements may result in restrictions on a product, manufacturer or holder of an approved NDA or BLA, including withdrawal or recall of the product from the market or other voluntary, FDA-initiated or judicial action that could delay or prohibit further marketing. Also, new government requirements, including those resulting from new legislation, may be established, or the FDA's policies may change, which could delay or prevent regulatory approval of our products under development.

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 holds on post-approval clinical studies;
- refusal of the FDA to approve pending NDAs or BLAs or supplements to approved NDAs or BLAs, or suspension or revocation of product licenses or approvals;
- product seizure or detention, or refusal to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Drugs may be promoted only for the approved indications 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, and a company that is found to have improperly promoted off-label uses may be subject to significant liability.

Orphan 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 or NDA. 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 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 or NDA application user fee.

A designated orphan drug may 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.

Biosimilars and Exclusivity

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or the Affordable Care Act, signed into law in 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. To date, only a handful of biosimilars have been licensed under the BPCIA, although numerous biosimilars have been approved in Europe. 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 worked out 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 studies 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, recent 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.

Hatch-Waxman Amendments and Exclusivity

Section 505 of the FDCA describes three types of marketing applications that may be submitted to the FDA to request marketing authorization for a new drug. A Section 505(b)(1) NDA is an application that contains full reports of investigations of safety and efficacy. A 505(b)(2) NDA is an application that contains full reports of investigations of safety and efficacy but where at least some of the information required for approval comes from investigations that were not conducted by or for the applicant and for which the applicant has not obtained a right of reference or use from the person by or for whom the investigations were conducted. This regulatory pathway enables the applicant to rely, in part, on the FDA's prior findings of safety and efficacy for an existing product, or published literature, in support of its application. Section 505(j) establishes an abbreviated approval process for a generic version of approved drug products through the submission of an Abbreviated New Drug Application, or ANDA. An ANDA provides for marketing of a generic drug product that has the same active

ingredients, dosage form, strength, route of administration, labeling, performance characteristics and intended use, among other things, to a previously approved product. ANDAs are termed “abbreviated” because they are generally not required to include preclinical (animal) and clinical (human) data to establish safety and efficacy. Instead, generic applicants must scientifically demonstrate that their product is bioequivalent to, or performs in the same manner as, the innovator drug through in vitro, in vivo or other testing. The generic version must deliver the same amount of active ingredients into a subject’s bloodstream in the same amount of time as the innovator drug and can often be substituted by pharmacists under prescriptions written for the reference listed drug. In seeking approval for a drug through an NDA, applicants are required to list with the FDA each patent with claims that cover the applicant’s drug or a method of using the drug. Upon approval of a drug, each of the patents listed in the application for the drug is then published in the FDA’s Approved Drug Products with Therapeutic Equivalence Evaluations, commonly known as the Orange Book. Drugs listed in the Orange Book can, in turn, be cited by potential competitors in support of approval of an ANDA or 505(b)(2) NDA.

Upon submission of an ANDA or a 505(b)(2) NDA, an applicant must certify to the FDA that (1) no patent information on the drug product that is the subject of the application has been submitted to the FDA; (2) such patent has expired; (3) the date on which such patent expires; or (4) such patent is invalid or will not be infringed upon by the manufacture, use or sale of the drug product for which the application is submitted. Generally, the ANDA or 505(b)(2) NDA cannot be approved until all listed patents have expired, except where the ANDA or 505(b)(2) NDA applicant challenges a listed patent through the last type of certification, also known as a paragraph IV certification. If the applicant does not challenge the listed patents, or indicates that it is not seeking approval of a patented method of use, the ANDA or 505(b)(2) NDA application will not be approved until all of the listed patents claiming the referenced product have expired.

If the ANDA or 505(b)(2) NDA applicant has provided a Paragraph IV certification to the FDA, the applicant must send notice of the Paragraph IV certification to the NDA and patent holders once the application has been accepted for filing by the FDA. The NDA and patent holders may then initiate a patent infringement lawsuit in response to the notice of the paragraph IV certification. If the paragraph IV certification is challenged by an NDA holder or the patent owner(s) asserts a patent challenge to the paragraph IV certification, the FDA may not approve that application until the earlier of 30 months from the receipt of the notice of the paragraph IV certification, the expiration of the patent, when the infringement case concerning each such patent was favorably decided in the applicant’s favor or settled, or such shorter or longer period as may be ordered by a court. This prohibition is generally referred to as the 30-month stay. In instances where an ANDA or 505(b)(2) NDA applicant files a paragraph IV certification, the NDA holder or patent owner(s) regularly take action to trigger the 30-month stay, recognizing that the related patent litigation may take many months or years to resolve.

The FDA also cannot approve an ANDA or 505(b)(2) application until all applicable non-patent exclusivities listed in the Orange Book for the branded reference drug have expired. For example, a pharmaceutical manufacturer may obtain five years of non-patent exclusivity upon NDA approval of a new chemical entity, or NCE, which is a drug containing an active moiety that has not been approved by FDA in any other NDA. An “active moiety” is defined as the molecule responsible for the drug substance’s physiological or pharmacologic action. During that five-year exclusivity period, the FDA cannot accept for filing (and therefore cannot approve) any ANDA seeking approval of a generic version of that drug or any 505(b)(2) NDA that relies on the FDA’s approval of the drug, provided that that the FDA may accept an ANDA four years into the NCE exclusivity period if the ANDA applicant also files a Paragraph IV certification.

A drug, including one approved under Section 505(b)(2), may obtain a three-year period of exclusivity for a particular condition of approval, or change to a marketed product, such as a new formulation for a previously approved product, if one or more new clinical studies (other than

bioavailability or bioequivalence studies) was essential to the approval of the application and was conducted/sponsored by the applicant. Should this occur, the FDA would be precluded from approving any ANDA or 505(b)(2) application for the protected modification until after that three-year exclusivity period has run. However, unlike NCE exclusivity, the FDA can accept an application and begin the review process during the exclusivity period.

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, state and federal anti-kickback, fraud and abuse, false claims, privacy and security and physician sunshine laws and regulations. If their operations are found to be in violation of any of such laws or any other governmental regulations that apply, they may be subject to penalties, including, without limitation, civil and criminal penalties, damages, fines, the curtailment or restructuring of operations, exclusion from participation in federal and state healthcare programs and individual imprisonment.

Coverage and Reimbursement

Sales of any 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. Decisions regarding the extent of coverage and amount of reimbursement to be provided are made on a plan-by-plan basis. These third-party payors are increasingly reducing reimbursements for medical products, drugs and services. In addition, the U.S. government, state legislatures and foreign governments have continued implementing cost-containment programs, including price controls, restrictions on coverage and reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit sales of any product. Decreases in third-party reimbursement for any product or a decision by a third-party payor not to cover a product could reduce physician usage and patient demand for the product and also have a material adverse effect on sales.

Healthcare Reform

In March 2010, former President Obama signed the Affordable Care Act, 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 Affordable Care Act contains a number of provisions, including those governing enrollment in federal healthcare programs, reimbursement adjustments and fraud and abuse changes. Additionally, the Affordable Care Act increases the minimum level of Medicaid rebates payable by manufacturers of brand name drugs from 15.1% to 23.1%; requires collection of rebates for drugs paid by Medicaid managed care organizations; requires manufacturers to participate in a coverage gap discount program, under which they must agree to offer 50 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; and imposes a non-deductible annual fee on pharmaceutical manufacturers or importers who sell "branded prescription drugs" to specified federal government programs.

Since its enactment, there have been judicial and Congressional 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. Other legislative changes have been proposed and adopted since the Affordable Care Act was enacted, including aggregate reductions of Medicare payments to providers of 2% per fiscal year and reduced payments to several types of Medicare providers. 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 bills designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drug products. 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, designed to encourage importation from other countries and bulk purchasing.

Licenses and Collaborations

Description of Ascentage Agreements

In February 2016, we entered into several related agreements with Ascentage Pharma Group Corp. Ltd., or, Ascentage, an affiliate of Jiangsu Ascentage Pharma Development Ltd., a private clinical-stage biopharmaceutical company based in China. These agreements include (i) a compound library and option agreement, which includes a template form of license agreement, (ii) a license agreement covering an initial compound, and (iii) a research services agreement.

Library Agreement and License Template

The compound library and option agreement, or library agreement, gives us access to Ascentage's existing collection of Bcl-2 inhibitor compounds, as well as any additional Bcl-2 inhibitor compounds developed during the term of the library agreement, in order to screen such compounds for senolytic activity. The library agreement permits us to nominate up to 15 such compounds at any given time for further evaluation and up to 10 of such selected compounds into preclinical development. Prior to commencing IND-enabling toxicology studies on an Ascentage compound of interest, we must formally designate the compound as a development candidate under the library agreement and enter into a separate license agreement with Ascentage covering that compound on the terms set forth in the template form of license agreement. The library agreement includes exclusivity provisions that (i) prohibit us from developing Ascentage Bcl-2 compounds for oncology indications, (ii) prohibit Ascentage from researching or developing certain Bcl-2 compounds for non-oncology indications under any circumstances, and (iii) prohibit Ascentage from researching or developing certain other Bcl-2 compounds for a specified set of non-oncology indications under certain circumstances. The term of the library agreement is determined by a formula that is linked to the term of the research services agreement, with a maximum term of six years. The library agreement may be terminated by either party due to the other party's uncured material breach of the library agreement.

Under the terms of the template form of license agreement, Ascentage will grant us the following rights with respect to a selected Ascentage compound for all non-oncology indications: (i) exclusive worldwide development rights, and (ii) exclusive commercialization rights outside of Greater China (China, Hong Kong, Macau and Taiwan). Inside Greater China, we will be obligated to commercialize the licensed Ascentage compound through a joint venture with Ascentage. Ascentage will also have the right to manufacture at least 50% of our supply requirements of the licensed compound, provided they achieve and maintain certain manufacturing quality standards. We will be obligated to make certain milestone payments in the form of shares of our common stock, subject to the equity cap described below, and other milestone payments in the form of cash, not to exceed \$38 million per licensed product, based in each case, upon the achievement of certain clinical and commercial

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milestones. We will also be required to make low-single digit royalty payments on net sales of the licensed product under the agreement. Our royalty payment obligations will expire on a country-by-country basis and licensed product-by-licensed product basis upon the later to occur of (a) the expiration of the last valid claim of a licensed patent covering such licensed product in such country, (b) the expiration of regulatory exclusivity for such licensed product in such country, and (c) the tenth anniversary of the first commercial sale of such licensed product in any country. We have the right to credit certain royalty payments that we pay to third parties with respect to certain licensed products against our royalty obligation to Ascentage. Any license agreement may be terminated by either party due to the other party's uncured material breach of the agreement.

Under the library agreement, we issued 133,333 shares of our common stock as an upfront license fee. Of such shares, 80% were issued to Ascentage and 20% were issued to the University of Michigan in satisfaction of Ascentage's obligation to pay a related sublicense fee to the University of Michigan. In addition to the shares issued pursuant to the APG 1252 license agreement described below, we will also be obligated to issue an additional 133,333 shares of our common stock as an upfront license fee to Ascentage and the University of Michigan for each of the next two license agreements. The aggregate number of shares of our common stock we could be required to issue to Ascentage and the University of Michigan pursuant to the library agreement, the APG 1252 license agreement, and any additional license agreements we enter into pursuant to the library agreement is capped at 1,333,338 shares.

APG 1252 License Agreement

In conjunction with the library agreement, we entered into our first license agreement with Ascentage, which grants us the right to develop and commercialize an Ascentage compound known as APG 1252 on the template license terms described above, including up to \$38.0 million of potential cash milestone payments and low-single digit royalties. Under the APG 1252 license agreement, Ascentage retains the right to manufacture APG 1252 compounds for use in our licensed products. In connection with the APG 1252 license agreement, we issued 533,335 shares of our common stock as an upfront license fee to Ascentage and the University of Michigan, in the proportion described above. The APG 1252 license agreement may be terminated by either party due to the other party's uncured material breach of the APG 1252 license agreement, and we may terminate for convenience on a licensed product-by-licensed product basis.

In October 2016, we nominated UBX1967 as a compound of interest for further evaluation under the library agreement. Prior to commencing IND-enabling toxicology studies on UBX1967 we anticipate designating UBX1967 as a development candidate, at which point we will enter into an exclusive license agreement on the template license terms.

Research Agreement

In conjunction with the library agreement we also entered into a research services agreement with Ascentage under which we provide \$500,000 per year in funding to Ascentage for the further development of Bcl-2 inhibitor compounds, which we retain the right to access under the library agreement. The research agreement has a term of up to four years, provided that the research agreement may be terminated by us for convenience after the first year, by either party due to the other party's uncured material breach, and by Ascentage if we fail to make the \$500,000 payment in any given year.

Additional License Agreements

We are party to three additional license agreements that support our senescence-related patent portfolio. These agreements are with The John Hopkins University, or JHU, an entity affiliated with the

Mayo Clinic, or Mayo, and the Buck Institute for Research on Aging, or Buck, and provide us with a worldwide, exclusive, sublicensable license under those counter-parties' rights to patent families that are co-owned by JHU, Buck, Mayo and us to develop and commercialize licensed products, including for the treatment of senescence-related diseases in therapeutic areas, including osteoarthritis, ophthalmology, and pulmonary disease.

Under our November 2016 license with JHU, which relates to patents that are relevant only to osteoarthritis indications, we may be obligated to make development and sales milestone payments to JHU in the form of equity (22,033 shares of our common stock) and cash (of up to \$2.6 million in the aggregate), to pay JHU a low-single digit percentage of certain sublicensing revenue, and to pay JHU a running royalty payment of less than 1% on net sales, in all cases, with respect to licensed products for the treatment of osteoarthritis, which we refer to as Royalty Products. Our obligation to pay running royalties to JHU under the agreement is subject to a non-material minimum annual royalty, and may continue on a country-by-country basis until such time as neither the manufacture, sale, or use of such Royalty Product would infringe a valid claim of a licensed patent in the applicable country. Our agreement with JHU continues on a country-by-country basis until the expiration of the last to expire licensed patent in such country (or until twenty years after the effective date if no licensed patent issues in such country). We may terminate the agreement for convenience (as a whole, with respect to a licensed product, or with respect to a particular licensed patent). Either party may terminate the agreement for the other party's uncured material breach of bankruptcy or insolvency-related events.

Under our June 2013 license with Mayo, we may be obligated to make development and sales milestone payments to Mayo of up to \$10.8 million in the aggregate, to pay Mayo a percentage of certain sublicensing revenue that is between the high-single digits and the low-teens, and to pay Mayo running royalty payments ranging from less than 1% to low-single digit percentages on net sales of licensed products. Our obligation to pay running royalties to Mayo under the agreement is subject to a non-material minimum annual royalty, and could potentially extend until January 1, 2037. We also issued 677,966 shares of our common stock to Mayo under this agreement. Our agreement with Mayo continues until the later of (i) the expiration of the last valid claim within the licensed patents and (ii) 13 years after first commercial sale of the first licensed product. We may terminate the agreement for convenience, and either party may terminate the agreement for the other party's uncured material breach.

Under our January 2017 license with Buck, which includes similar rights to a second patent family that is co-owned by Buck and us, we may be obligated to make development and sales milestone payments to Buck of up to \$5.4 million in the aggregate, to pay Buck a mid-single digit percentage of certain sublicensing revenue, and to pay Buck running royalty payments ranging from less than 1% to low-single digit percentages on net sales of licensed products. Our obligation to pay running royalties to Buck under the agreement is subject to a non-material minimum annual royalty, and could potentially extend until January 1, 2037. We also issued 132,203 shares of our common stock to Buck under this agreement. The term of our license agreement with Buck continues until the expiration of all our payment obligations to Buck thereunder. We may terminate the agreement for convenience, and either party may terminate the agreement for the other party's uncured material breach.

Employees

As of December 31, 2017, we had approximately 67 employees, 65 of whom were full-time. Greater than 65% of our employees hold advanced degrees. The majority of our employees work in our Brisbane, California, facility. None of our employees is represented by a labor union or a collective bargaining agreement.

Facilities

Our corporate headquarters are located in Brisbane, California, where we lease approximately 39,000 square feet of office, research and development, laboratory, and vivarium space pursuant to a lease dated May 13, 2016, which continues through October 2022. Substantially all our employees work at this facility. We believe this facility is sufficient for our near-term needs, and expect to expand to new and/or additional space as we grow. We believe the biotechnology environment in the South San Francisco area offers suitable additional space on commercially reasonable terms to enable our expansion.

Legal Proceedings

We are not currently involved in any litigation or legal proceedings that, in management's opinion, are likely to have any material adverse effect on our company. While we know of no imminent legal action in which we are likely to be involved, we may in the future become engaged in litigation or other legal proceedings. Regardless of the outcome, litigation can have an adverse impact due to defense fees, settlement costs, demands on management attention, and other concerns.

MANAGEMENT**Executive Officers and Directors**

The following table sets forth information regarding our executive officers, directors and key employees as of April 1, 2018:

Name	Age	Position(s)
Executive Officers and Employee Directors		
Keith R. Leonard Jr.	56	Chairman, Chief Executive Officer and Director
Nathaniel E. David, Ph.D.	50	President and Director
Robert C. Goeltz II	45	Chief Financial Officer
Jamie Dananberg, M.D.	60	Chief Medical Officer
Daniel G. Marquess, D. Phil	49	Chief Scientific Officer
Tamara L. Tompkins, J.D.	53	General Counsel and Corporate Secretary
Significant Employees		
Pedro J. Beltran, Ph.D.	47	Senior Vice President, Biology
Douglas A. Rich	49	Senior Vice President, Operations
Susan L. Smuck	51	Senior Vice President, People
Non-Employee Directors		
Paul L. Berns(1)(2)	51	Director
Kristina M. Burow(2)(3)	44	Director
Graham K. Cooper(1)(2)	48	Director
David L. Lacey M.D.(3)	65	Director
Robert T. Nelsen(3)	54	Director
Camille D. Samuels(1)(3)	46	Director

(1) Member of the audit committee.

(2) Member of the compensation committee.

(3) Member of the nominating and corporate governance committee.

Executive Officers and Employee Directors

Keith R. Leonard Jr., has served as our Chairman since January 2016 and our Chief Executive Officer since October 2016.

Mr. Leonard was a co-founder of and served as President and Chief Executive Officer of KYTHERA Biopharmaceuticals, Inc., a public biopharmaceutical company, or KYTHERA, from August 2005 until its acquisition by Allergan plc, a public pharmaceutical company, or Allergan, in October 2015. Prior to that, Mr. Leonard held roles of increasing responsibility at Amgen Inc., a public biotechnology company, or Amgen, from October 1991 to November 2004, including as Senior Vice President and General Manager of Amgen Europe.

Mr. Leonard currently serves on the board of directors of Sanifit Laboratories S.L., a biopharmaceutical company, and Intuitive Surgical, Inc., a public medical device company, and is the Chairman of the board of directors for Sienna Biopharmaceuticals, Inc., a public biotechnology company, or Sienna. He previously served on the boards of directors of Affymax, Inc., a public biotechnology company, Anacor Pharmaceuticals, Inc., a public biopharmaceutical company, and ARYx Therapeutics, Inc., a public biopharmaceutical company.

Mr. Leonard was formerly an active duty officer in the United States Navy. Mr. Leonard received a B.S. in Engineering from the University of California, Los Angeles, a B.A. in History from the University of Maryland, an M.S. in Engineering from the University of California, Berkeley, and an M.B.A. from the Anderson School of Management at the University of California, Los Angeles. We believe that Mr. Leonard is qualified to serve on our board of directors due to his extensive executive

management and leadership experience in the life science industry, as well as experience as a director of public companies.

Nathaniel E. David, Ph.D., is our co-founder and has served as a member of our board of directors since its inception in November 2011, our President since January 2016, and as our Chief Executive Officer from our inception until January 2016. Dr. David was a co-founder of and served as Chief Science Officer of KYTHERA from January 2005 to September 2009 and a member of the board of directors from its inception until its acquisition by Allergan. He was a co-founder of Syrrx, Inc., a biotechnology company, or Syrrx, which was acquired by Takeda Pharmaceutical Company Limited, a public pharmaceutical company, or Takeda, where he was Director of Business Development from 1999 to 2003. Dr. David was also a co-founder of Achaogen, Inc., a public biotechnology company, and Sapphire Energy, Inc., an energy company. Dr. David currently serves on the board of trustees of the University of California Foundation. Dr. David previously served on the board of trustees of the Buck Institute for Research on Aging, and on the board of directors of Sapphire Energy, Inc. Dr. David received a B.A. in Biology from Harvard University and a Ph.D. in Molecular and Cellular Biology from the University of California, Berkeley. We believe that Dr. David is qualified to serve on our board of directors due to his extensive scientific and operational background gained as a research scientist, founder, and executive focused on life science and pharmaceutical companies.

Robert C. Goeltz II has served as our Chief Financial Officer since September 2017. Previously, he served as Chief Financial Officer of CytomX Therapeutics, Inc., a public biotechnology company, from May 2015 to May 2017. Prior to that, Mr. Goeltz served as Chief Financial Officer of Onyx Pharmaceuticals, Inc. after its acquisition by Amgen Inc., from October 2013 until May 2015. Previously, Mr. Goeltz held roles of increasing responsibility at Amgen, including in Business Development, Commercial Finance, R&D Finance and Corporate Accounting from August 2004 to November 2013. He began his career working in the audit practice of Ernst & Young LLP. Mr. Goeltz received a B.B.A. in Business from Emory University and an M.B.A. from the UCLA Andersen School of Management. He is also a Certified Public Accountant (inactive).

Jamie Dananberg, M.D., has served as our Chief Medical Officer since January 2016. Prior to that, Dr. Dananberg held roles of increasing responsibility at Takeda from August 2012 to October 2015, including as Executive Vice President, and at Eli Lilly & Co., a public pharmaceutical company, from October 2000 to September 2012, including as Vice President for Translational Medicine and Tailored Therapeutics. At the University of Michigan, Dr. Dananberg practiced medicine in Endocrinology & Metabolism and ran a basic science laboratory from 1983 to 1996. Dr. Dananberg received a B.S. in Biology and an M.D. from Tufts University.

Daniel G. Marquess, D. Phil., has served as our Chief Scientific Officer since December 2015. Prior to that, Dr. Marquess held roles of increasing responsibility at Theravance Biopharma, Inc., a public biopharmaceutical company, from June 1998 to December 2015, including as Vice President and Head of Medicinal Chemistry, and at GlaxoSmithKline, plc, a public pharmaceutical company from 1994 to 1998, including as a research scientist. Since November 2011, he has served as pharmaceutical discovery advisor to the Wellcome Trust, the second largest biomedical charitable organization in the world. Mr. Marquess received a B.S. in Chemistry from the Queen's University, Belfast, Northern Ireland, and a D. Phil in Organic Chemistry from the University of Oxford.

Tamara L. Tompkins, J.D., has served as our General Counsel and Corporate Secretary since June 2017. Prior to that, Ms. Tompkins served as an Operating Partner, General Counsel, and Chief Administrative Officer of Khosla Ventures, a venture capital firm, from January 2013 to December 2016. From February 2005 to May 2012, Ms. Tompkins served as General Counsel of Amyris, Inc., a public bio-renewables company. She began her career in private practice, first with Shearman & Sterling, then Brobeck, Phleger & Harrison, and finally as Of Counsel at Morgan Lewis. Ms. Tompkins received a B.A. in History from Middlebury College and a J.D. from Georgetown University.

Significant Employees

Pedro J. Beltran, Ph.D., has served as our Senior Vice President, Biology, since December 2017. Prior to that, Dr. Beltran held roles of increasing responsibility at Amgen from September 2003 to November 2017, including as Executive Director of Discovery Research. At the University of Miami, Dr. Beltran served as Assistant Scientist from November 2001 to August 2003 and was a postdoctoral fellow from November 1998 to November 2001. He received a B.S. in Molecular Biology from the Florida Institute of Technology and a Ph.D. in Cancer Biology from the University of Texas, Health Science Center at Houston.

Douglas A. Rich has served as our Senior Vice President, Operations, since April 2017. Mr. Rich served as Senior Vice President, Operations of KYTHERA from February 2015 until its acquisition by Allergan in February 2016, and prior to that he served as Vice President, Manufacturing, of KYTHERA from May 2014 until January 2015. Previously, Mr. Rich held roles of increasing responsibility at Boehringer Ingelheim, a pharmaceutical company, from March 2011 to April 2014, including Vice President, Quality. He spent over 18 years at Amgen in various roles within Operations from October 2001 to August 2011. He received a B.S. in Biology from the University of Southern California and an M.B.A. from Pepperdine University.

Susan L. Smuck has served as our Senior Vice President, People, since January 2016. She served as Senior Vice President, Human Resources, of KYTHERA from October 2006 until its acquisition by Allergan in October 2015. Prior to that, Ms. Smuck held roles of increasing responsibility at Activus Healthcare Solutions, Inc., a healthcare company, from 2005 to 2007, including Vice President of Human Resources and Administration, and at Amgen from 1993 to 2005, including Senior Director of Human Resources. Ms. Smuck received a B.A. in Psychology and Business Administration from California Lutheran University and currently chairs the University's Board of Regents.

Non-Employee Directors

Paul L. Berns has served as a member of our board of directors since March 2018. Mr. Berns has been a consultant in the pharmaceutical industry since July 2016, as well as from August 2012 to March 2014 and from July 2005 to March 2006. From March 2014 to June 2016, Mr. Berns served as President and Chief Executive Officer at Anacor Pharmaceuticals, Inc. a biopharmaceutical company, which was acquired by Pfizer Inc. in 2016. Previously, Mr. Berns served as President and Chief Executive Officer of Allos Therapeutics, Inc., a biopharmaceutical company, from March 2006 to September 2012, when it was acquired by Spectrum Pharmaceuticals, Inc. Mr. Berns was President and Chief Executive Officer of Bone Care International, Inc., a specialty pharmaceutical company, from June 2002 to July 2005, when it was acquired by Genzyme Corporation. Prior to that, Mr. Berns was Vice President and General Manager of the Immunology, Oncology and Pain Therapeutics business unit of Abbott Laboratories from 2001 to 2002, and from 2000 to 2001, he served as Vice President, Marketing of BASF Pharmaceuticals/Knoll, when it was acquired by Abbott Laboratories in 2001. Earlier in his career, Mr. Berns held various positions, including senior management roles, at Bristol-Myers Squibb Company from 1990 to 2000. Mr. Berns is currently a board member of the privately held company, MC2 Therapeutics (since May 2017), and the publicly held companies, Jazz Pharmaceuticals, PLC (since April 2010) and Menlo Therapeutics, Inc. (since November 2017). Mr. Berns previously served on the boards of Anacor Pharmaceuticals, Inc. (from June 2012 to June 2016), XenoPort, Inc. (from November 2005 to May 2016), Allos Therapeutics, Inc. (from March 2006 to September 2012) and Bone Care International, Inc. (from June 2002 to July 2005). Mr. Berns received his B.S. in Economics from the University of Wisconsin. We believe that Mr. Berns is qualified to serve on our board of directors because of his extensive experience in the biopharmaceutical industry and his service as a director of a number of public pharmaceutical companies.

Kristina M. Burow has served as a member of our board of directors since its inception in November 2011. Ms. Burow has served as Managing Director of ARCH Venture Partners, or ARCH, since November 2011 and previously held roles of increasing responsibility at ARCH from August 2002 to November 2011. Ms. Burow currently serves on the boards of directors of several biopharmaceutical and biotechnology companies, including Vividion Therapeutics, Inc., Lycera Corp., BlackThorn Therapeutics, Inc., Metacrine, Inc., Scholar Rock, Inc., AgBiome Inc., Vir Biotechnology Inc., and AgTech Accelerator, an agricultural technology startup accelerator. Ms. Burow also serves on the board of directors of Sienna. She previously was a co-founder and member of the board of directors of Receptos, Inc., a public pharmaceutical company, until its acquisition by Celgene Corporation, a public biopharmaceutical company, and of Sapphire Energy, Inc., an energy company. Ms. Burow has participated in a number of other ARCH portfolio companies including KYTHERA, Siluria Technologies, Inc., an energy company, and Ikaria, Inc., a biotechnology company, acquired by Madison Dearborn Partners, a private equity firm. Prior to joining ARCH, Ms. Burow was an Associate with the Novartis BioVenture Fund in San Diego and an early employee at the Genomics Institute of the Novartis Research Foundation. Ms. Burow received a B.A. in Chemistry from the University of California, Berkeley, an M.A. in Chemistry from Columbia University, and an M.B.A. from the University of Chicago. We believe that Ms. Burow is qualified to serve on our board of directors due to her extensive experience investing in biopharmaceutical and biotechnology companies and her experience on boards of directors in the medical industry.

Graham K. Cooper has served as a member of our board of directors since April 2017. Since March 2018, Mr. Cooper has served as the Chief Financial Officer and Chief Operating Officer of Assembly Biosciences, Inc. Mr. Cooper previously served as the Chief Financial Officer of Receptos, from February 2013 until its acquisition by Celgene in August 2015 and the Executive Vice President, Finance, and Chief Financial Officer of Geron Corporation, a public biopharmaceutical company from January 2012 to December 2012. From May 2006 until March 2011, Mr. Cooper served as Senior Vice President, Chief Financial Officer, and Treasurer of Orexigen Therapeutics, Inc., a public biotechnology company. Prior to that, Mr. Cooper held roles of increasing responsibility at Deutsche Bank Securities, an investment bank, from August 1997 to February 2006, including Director, Health Care Investment Banking. He began his career as an accountant at Deloitte & Touche, and was previously a C.P.A. Mr. Cooper currently serves on the board of directors of Celladon Corporation, a biopharmaceutical company. Mr. Cooper received a B.A. in Economics from the University of California at Berkeley and an M.B.A. from the Stanford Graduate School of Business. We believe that Mr. Cooper is qualified to serve on our board of directors due to his significant financial and accounting experience in the life sciences industry.

David L. Lacey, M.D., has served as a member of our board of directors since February 2018. Dr. Lacey currently serves as Scientific Advisor at Verdant Therapeutics Inc., a biotechnology company. Prior to that, Dr. Lacey held roles of increasing responsibility at Amgen from 1994 to 2011, including as Senior Vice President of Research. Dr. Lacey currently serves on the board of directors of argenx SE, a public biotechnology company. He also serves on the boards of directors of Nurix, Inc., a biotechnology company, and Inbiomotion SL, a biotechnology company. He previously served on the boards of directors or as an advisory board member to Bay Area Bioscience Association and AnaptysBio, Inc. Dr. Lacey previously served as Assistant Professor of Pathology at Jewish Hospital, Washington University Medical Center and was also a postgraduate research associate in the University of Colorado's Department of Pathology. Dr. Lacey received a B.S. in Biology and an M.D. from the University of Colorado. We believe that Dr. Lacey is qualified to serve on our board of directors due to his extensive experience as an advisor to biotechnology companies and his medical background.

Robert T. Nelsen has served as a member of our board of directors since its inception in November 2011. Mr. Nelsen is a co-founder and has served as a Managing Director of ARCH Venture

Partners, a venture capital firm, since July 1994. Mr. Nelsen currently serves on the boards of directors of public biopharmaceutical and biotechnology companies, including Agios Pharmaceuticals, Inc., Juno Therapeutics, Inc., Sienna, Syros Pharmaceuticals Inc., and Denali Therapeutics Inc. Mr. Nelsen also currently serves on the boards of directors of private biotechnology companies, including Arivale Inc., Encoded Genomics, Inc., Ensemble Discovery Corp., and as Chairman of the board of directors of Hua Medicine. Previously, Mr. Nelsen served on a number of public biopharmaceutical and biotechnology companies, including Bellerophon Therapeutics, Inc., Fate Therapeutics, Inc., KYTHERA, NeurogesX, Inc., and Sage Therapeutics Inc. He previously served as a trustee of the Fred Hutchinson Cancer Research Institute and the Institute for Systems Biology, and as a member of the board of directors of the National Venture Capital Association. Mr. Nelsen received a B.S. from the University of Puget Sound with majors in Economics and Biology and an M.B.A. from the University of Chicago. We believe that Mr. Nelsen is qualified to serve on our board of directors due to his extensive experience serving on the board of directors of clinical-stage biotechnology companies and his investment experience in the life sciences industry.

Camille D. Samuels has served as a member of our board of directors since March 2015. Ms. Samuels has been a Partner of Venrock, a venture capital firm, since May 2014. Prior to that, she served as a Managing Director of Versant Ventures, a life sciences venture capital firm, from February 2000 to December 2012. She previously served as a board member or a board observer on other public healthcare companies, including Achaogen, Inc., Carmenta Biosciences, Fluidigm Corporation, Genomic Health, Inc., KYTHERA, Novacardia, Inc., ParAllele BioScience, Inc., RegenXBIO and Syrrx. Prior to her venture career, Ms. Samuels held business development and strategic marketing roles at Tularik Inc., a public biotechnology company, acquired by Amgen and Genzyme Corp. Ms. Samuels received a B.A. in Biology from Duke University and an M.B.A. from Harvard Business School, both with high distinction.

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. Leonard and Dr. David, qualify as “independent” directors in accordance with The Nasdaq Global Select Market listing requirements. Mr. Leonard and Dr. David are not considered independent because each is an employee of Unity Biotechnology, Inc. The Nasdaq Global Select Market’s independence definition 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 Global Select Market 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 business and personal activities and relationships as they may relate to us and our management. There are no family relationships among any of our directors or executive officers.

Classified Board of Directors

In accordance with our amended and restated certificate of incorporation to be in effect immediately prior to the consummation of this offering, our board of directors will be divided into three classes with staggered, three-year terms. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification

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until the third annual meeting following election. Effective upon the consummation of this offering, our directors will be divided among the three classes as follows:

- the Class I directors will be Nathaniel E. David, David L. Lacey and Robert T. Nelsen, and their terms will expire at the annual meeting of stockholders to be held in 2019;
- the Class II directors will be Paul L. Berns, Graham K. Cooper and Camille D. Samuels, and their terms will expire at the annual meeting of stockholders to be held in 2020; and
- the Class III directors will be Keith R. Leonard and Kristina M. Burow, and their terms will expire at the annual meeting of stockholders to be held in 2021.

Our amended and restated certificate of incorporation will provide that the authorized number of directors may be changed only by resolution of the board of directors. 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 of our company.

Voting Arrangements

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

Pursuant to the voting agreement and these provisions the holders of our Series A-1 and Series A-2 convertible preferred stock, voting together as a single class, have the right to elect two directors to our board of directors, the holders of our Series B convertible preferred stock, voting as a separate class, have the right to elect one director to our board of directors and the holders of our common stock and our preferred stock, exclusively and voting together as a single class, have the right to elect the balance of the total number of our directors, which are designated as follows:

- two members designated by ARCH (together with its affiliated funds) and elected by the holders of a majority of our Series A-1 and Series A-2 convertible preferred stock, voting together as a single class, for which Ms. Burow and Mr. Nelsen have been designated;
- one member designated by the holders of a majority of our Series B convertible preferred stock, voting as a separate class, for which Dr. Lacey has been designated;
- four members designated by the other members of our board of directors and elected by the holders of a majority of the shares of our common stock and convertible preferred stock, voting together as a single class, for which Ms. Samuels, Mr. Berns, Mr. Cooper, and Dr. David have been designated; and
- one member elected by the holders of a majority of the shares of our common stock and convertible preferred stock, voting together as a single class, who shall be our then-serving Chief Executive Officer, for which Mr. Leonard has been designated.

The holders of our common stock and convertible preferred stock who are parties to our voting agreement are obligated to vote for such designees indicated above. The provisions of this voting agreement will terminate upon the consummation of this offering and our amended and restated certificate of incorporation will be amended and restated, after which there will be no further contractual obligations or charter provisions regarding the election of our directors. Our directors hold office until their successors have been elected and qualified or appointed, or the earlier of their death, resignation, or removal.

Leadership Structure of the Board

Our amended and restated bylaws and corporate governance guidelines will provide our board of directors with flexibility to combine or separate the positions of Chairman of the board of directors and Chief Executive Officer and to implement a lead director in accordance with its determination that utilizing one or the other structure would be in the best interests of our company. Mr. Leonard currently serves as the chairman of our board of directors. In that role, Mr. Leonard presides over the executive sessions of the board of directors and as a liaison between management and the board of directors.

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 monitors compliance with legal and regulatory requirements and considers and 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 the following standing committees: 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.

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;

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- 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 complaints received by the Company 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;
- monitors the rotation of partners of the independent registered public accounting firm on our engagement team in accordance with requirements established by the SEC;
- discusses on a periodic basis, or as appropriate, with management the Company's policies and procedures with respect to risk assessment and risk management;
- 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;
- annually reviews and assesses internal controls and treasury functions including cash management procedures;
- investigates any reports received through the ethics helpline and report to the Board periodically with respect to the information received through the ethics helpline and any related investigations;
- reviews our critical accounting policies and estimates; and
- reviews the audit committee charter and the committee's performance at least annually.

The members of our audit committee are Paul L. Berns, Graham K. Cooper and Camille D. Samuels. Mr. Cooper serves as the chairperson of the committee. All members of our audit committee meet the requirements for financial literacy under the applicable rules and regulations of the SEC and The Nasdaq Global Select Market. Our board of directors has determined that Mr. Cooper is an audit committee financial expert as defined under the applicable rules of the SEC and has the requisite financial sophistication as defined under the applicable rules and regulations of The Nasdaq Global Select Market. Under the rules of the SEC, members of the audit committee must also meet heightened independence standards. Our board of directors has determined that each of Messrs. Berns and Cooper and Ms. Samuels are independent under the applicable rules of the SEC and The Nasdaq Global Select Market. The audit committee operates under a written charter that satisfies the applicable standards of the SEC and The Nasdaq Global Select Market.

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, at least annually, the performance of the compensation committee and its members, including compliance by the compensation committee with its charter. The members of our compensation committee are Paul L. Berns, Kristina M. Burow and Graham K. Cooper. Mr. Berns serves as the chairman of the committee. Each of the members of our compensation committee is independent under the applicable rules and regulations of The Nasdaq Global Select Market, is a “non-employee director” as defined in Rule 16b-3 promulgated under the Exchange Act and is an “outside director” as that term is defined in Section 162(m) of the U.S. Internal Revenue Code of 1986, as amended, or Section 162(m). The compensation committee operates under a written charter that satisfies the applicable standards of the SEC and The Nasdaq Global Select Market.

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 reporting and making recommendations to our board of directors concerning governance matters. The members of our nominating and corporate governance committee are Kristina M. Burow, David L. Lacey, Robert T. Nelsen and Camille D. Samuels. Dr. Lacey serves as the chairman of the committee. Each member of our nominating and corporate governance committee is an independent director under the applicable rules and regulations of The Nasdaq Global Select Market relating to nominating and corporate governance committee independence. The nominating and corporate governance committee operates under a written charter that satisfies the applicable standards of the SEC and The Nasdaq Global Select Market.

Compensation Committee Interlocks and Insider Participation

During the year ended December 31, 2017, our compensation committee consisted of Mses. Burow and Samuels and Mr. Cooper. None of the members of our compensation committee during 2017 nor any of the current members of our compensation committee has at any time been one of our officers or employees. None of our executive officers currently serves, or in the past fiscal year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers on our board of directors or 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;

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- experience in corporate management, such as serving as an officer or former officer of a publicly held company;
- experience in the industries in which we compete;
- experience as a board member or executive officer of another publicly held company;
- diversity of expertise and experience in substantive matters pertaining to our business relative to other board members;
- conflicts of interest; and
- practical and mature business judgment.

Currently, our board of directors evaluates, and following the consummation of this offering will evaluate, each individual in the context of the board of directors as a whole, with the objective of assembling a group that can best maximize the success of the business and represent stockholder interests through the exercise of sound judgment using its diversity of experience in these various areas.

Code of Business Conduct and Ethics

Prior to the consummation of this offering, we will adopt a code of business conduct and ethics that will apply to all of our employees, officers and directors, including those officers responsible for financial reporting. Following the consummation of this offering, the code of business conduct and ethics will be available on our website. We expect that any amendments to the code, or any waivers of its requirements, will be disclosed on our website.

Limitation on Liability and Indemnification Matters

Our amended and restated certificate of incorporation, which will become effective immediately prior to the consummation of this offering, will contain provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors will not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for:

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

Each of our amended and restated certificate of incorporation and amended and restated bylaws, which will become effective immediately prior to the consummation of this offering, will provide that we are required to indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law. Our amended and restated bylaws will also obligate us to advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding, and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under Delaware law. We have entered and expect to continue to enter into agreements to indemnify our directors, executive officers and other employees as determined by our

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board of directors. With specified exceptions, these agreements provide for indemnification for related expenses including, among other things, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors' and officers' liability insurance.

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

Director Compensation

Historically, we have not had a formalized non-employee director compensation program. In April 2017, the Board granted an option to purchase 84,745 shares of our common stock to Graham K. Cooper, which vests annually over three years subject to Mr. Cooper's continued service. Other than the stock option grant to Mr. Cooper, none of our non-employee directors received any compensation for his or her service in 2017. In connection with their appointments to the Board, in February 2018 and March 2018, the Board granted to each of Dr. Lacey and Mr. Berns, respectively, an option to purchase 84,745 shares of our common stock, which vest annually over three years subject to their respective continued service. We reimburse our non-employee directors for travel and other necessary business expenses incurred in the performance of their services for us.

Name	Fees Earned or Paid in Cash (\$)	Option Awards \$(1)(2)	All Other Compensation (\$)	Total (\$)
Kristina M. Burow	—	—	—	—
Graham K. Cooper	—	194,549	—	194,549
Robert T. Nelsen	—	—	—	—
Camille D. Samuels	—	—	—	—

- (1) Amounts reflect the full grant-date fair value of stock options granted during 2017 computed in accordance with ASC Topic 718, rather than the amounts paid to or realized by the named individual. See Note 12 of the audited financial statements included in this prospectus for the assumptions used in calculating these amounts.
- (2) As of December 31, 2017, Mr. Cooper held an option to purchase 84,745 shares of our common stock. No other non-employee director held any other equity awards as of December 31, 2017.

We have approved and implemented a compensation policy for our non-employee directors to be effective in connection with the consummation of this offering, or the Director Compensation Program. Pursuant to the Director Compensation Program, our non-employee directors will receive cash compensation as follows:

- Each non-employee director will receive an annual cash retainer in the amount of \$40,000 per year.
- The chairperson of the audit committee will receive additional annual cash compensation in the amount of \$15,000 per year for such chairperson's service on the audit committee. Each non-chairperson member of the audit committee will receive additional annual cash compensation in the amount of \$7,500 per year for such member's service on the audit committee.

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- The chairperson of the compensation committee will receive additional annual cash compensation in the amount of \$12,500 per year for such chairperson's service on the compensation committee. Each non-chairperson member of the compensation committee will receive additional annual cash compensation in the amount of \$6,250 per year for such member's service on the compensation committee.
- The chairperson of the nominating and corporate governance committee will receive additional annual cash compensation in the amount of \$8,000 per year for such chairperson's service on the nominating and corporate governance committee. Each non-chairperson member of the nominating and corporate governance committee will receive additional annual cash compensation in the amount of \$4,000 per year for such member's service on the nominating and corporate governance committee.

Under the Director Compensation Program, each non-employee director who is elected or appointed to our board of directors after the completion of this offering will automatically receive an option award representing \$450,000 in grant date fair value upon the director's initial appointment or election to our board of directors, referred to as the Initial Grant. In addition, each non-employee director who is serving on our board of directors immediately following an annual stockholder's meeting will automatically be granted an annual option representing \$225,000 in grant date fair value on the date of such annual stockholder's meeting, referred to as the Annual Grant. The Initial Grant will vest as to 1/36th of the underlying shares on a monthly basis over three years, subject to continued service through each applicable vesting date. The Annual Grant will vest in full on the one year anniversary of the grant date, subject to continued service through each applicable vesting date. All equity awards granted to our non-employee directors under the Director Compensation Program will vest in full as to any unvested portion of the award immediately prior to the consummation of a change in control transaction.

EXECUTIVE COMPENSATION

This section discusses the material components of the executive compensation program for our executive officers who are named in the “2017 Summary Compensation Table” below. In 2017, our “named executive officers” and their positions were as follows:

- Keith R. Leonard Jr., Chief Executive Officer;
- Nathaniel E. David, Ph.D., President; and
- Robert C. Goeltz II, Chief Financial Officer.

This discussion may contain forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt following the 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.

2017 Summary Compensation Table

The following table sets forth information concerning the compensation of our named executive officers for the year ended December 31, 2017.

<u>Name and Principal Position</u>	<u>Year</u>	<u>Salary (\$)</u>	<u>Bonus \$(1)</u>	<u>Stock Awards \$(2)</u>	<u>Option Awards \$(2)</u>	<u>All Other Compensation (\$)</u>	<u>Total (\$)</u>
Keith R. Leonard Jr. Chief Executive Officer	2017	485,000	237,650	—	3,188,725	115,521(3)	4,026,896
Nathaniel E. David President	2017	425,000	169,575	—	1,973,679	—	2,568,254
Robert C. Goeltz II(4) Chief Financial Officer	2017	112,386	39,729	—	902,794	—	1,054,909

- (1) Amounts represent the annual performance-based cash bonuses earned by our named executive officers based on the achievement of certain corporate performance objectives and individual performance, other than with respect to our Chief Executive Officer, during 2017. These amounts were paid to the named executive officers in early 2018. Please see the descriptions of the annual performance bonuses paid to our named executive officers under “2017 Bonuses” below.
- (2) Amounts reflect the full grant-date fair value of stock awards and option awards during 2017 computed in accordance with ASC Topic 718. Amounts in the option awards column also reflect stock purchase rights granted to Dr. David in 2017. For performance-vesting options, the grant date fair value is based on the probable outcome of the applicable performance conditions (which was also the maximum level of achievement) as well as the value of the applicable market conditions based on a Monte Carlo simulation. The assumptions used in calculating the grant date fair value of the awards disclosed in these columns are set forth in the notes to our audited financial statements included elsewhere in this prospectus. These amounts do not correspond to the actual value that may be recognized by the named executive officers upon vesting of the applicable awards.
- (3) Amounts represent \$90,000 for Mr. Leonard’s housing allowance and \$25,521 in taxable reimbursement of expenses incurred by Mr. Leonard in traveling from his home in Southern California to our principal offices in Brisbane, California.
- (4) Mr. Goeltz commenced employment as our Chief Financial Officer on September 5, 2017.

Narrative to Summary Compensation Table

2017 Salaries

The named executive officers 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.

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For fiscal year 2017, Mr. Leonard's annual base salary was \$485,000, Dr. David's base salary was \$425,000, and Mr. Goeltz's base salary was \$345,000. The annual base salaries of Mr. Leonard and Dr. David remained unchanged from their respective levels in 2016, and Mr. Goeltz's base salary was determined by the Compensation Committee as a result of negotiations in connection with his commencement of employment with us in September 2017. In early 2018, we entered into employment agreements with each of our named executive officers providing for the following annual base salaries: Mr. Leonard: \$500,000, Dr. David: \$437,750, and Mr. Goeltz: \$350,000. The Board has also approved increasing Mr. Goeltz's base salary to \$385,000 effective upon the completion of this offering.

2017 Bonuses

We maintain an annual performance-based cash bonus program in which each of our named executive officers participated in 2017. Each of our named executive officers' target bonus is expressed as a percentage of base salary which can be achieved by meeting corporate goals at target level. The 2017 annual bonuses for Mr. Leonard, Dr. David and Mr. Goeltz were targeted at 50%, 40% and 35% of their respective base salaries. The target bonuses of Mr. Leonard and Dr. David remained unchanged from their respective levels in 2016, and Mr. Goeltz's target bonus was determined by the Compensation Committee as a result of negotiations in connection with his commencement of employment with us in September 2017. The employment agreements entered into with each of our named executive officers in early 2018 provide for the same target bonuses to each of these officers as in 2017.

For 2017, our named executive officers were eligible to earn annual cash bonuses based on the achievement of certain corporate performance objectives approved by the Compensation Committee and the Board, as well as individual performance for Dr. David and Mr. Goeltz. For the 2017, the Board set corporate performance goals in the three broad strategic areas of advancing therapeutic programs, discovering new molecules, paths and diseases, and building capability (including human resources, finance and intellectual property goals). Each area included specific performance objectives and a corresponding weighting. For each strategic area, the Board also approved certain "stretch" goals with corresponding weightings, such that the corporate goals could be achieved at up to 142.5% of target.

In early 2018, the Board reviewed and approved the achievement of our 2017 corporate goals at 98%. Based on this level of achievement and adjustments for individual 2017 performance for Dr. David and Mr. Goeltz, which were determined by the Board following the recommendation of Mr. Leonard, our named executive officers were paid at the following percentages of their targeted amounts: Mr. Leonard: 98%; Dr. David: 99.75%; and Mr. Goeltz: 101%.

The actual annual cash bonuses awarded to each named executive officer for 2017 performance are set forth above in the Summary Compensation Table in the column titled "Bonus." Mr. Goeltz's annual bonus was based on his actual base salary earnings for 2017.

Equity Compensation

Certain of our named executive officers currently hold options or restricted stock. Specifically, in 2017, Messrs. Leonard and Goeltz and Dr. David were granted options to purchase our common stock, and Dr. David was granted certain additional stock purchase rights, in each case, pursuant to our 2013 Equity Incentive Plan.

In January 2017, pursuant to his employment agreement with us dated as of October 26, 2016, the Board granted to Mr. Leonard an option to purchase 1,384,100 shares of our common stock, which vests as to 1/48th of the shares subject to the option each month from October 26, 2016, subject to Mr. Leonard's continued service to the Company on each applicable vesting date. In addition, the

option is subject to the accelerated vesting provisions set forth in Mr. Leonard's employment agreement, as described below under "Executive Compensation Arrangements."

In September 2017, in connection with his commencement of employment with us, the Board granted to Mr. Goeltz an option to purchase 220,338 shares of our common stock subject to time-based vesting, and an option to purchase 115,254 shares of our common stock subject to performance-based vesting. The time-vesting option vests with respect to 25% of the shares subject to the option on the first anniversary of Mr. Goeltz's employment commencement date, and with respect to 1/48th of the shares subject to the option on each monthly anniversary thereafter, subject to Mr. Goeltz's continued service to the Company on each applicable vesting date. The performance-vesting option vests as to (i) 25% of the shares subject to the option upon the achievement of a clinical milestone, (ii) as to 25% of the shares subject to the option upon a financing or valuation milestone; and (iii) as to 50% of the shares subject to the option upon an additional financing or valuation milestone. Mr. Goeltz exercised options to purchase 94,718 shares of our common stock in January 2018 using a combination of cash and a promissory note in the principal amount of \$188,500, which was repaid on April 4, 2018.

In September 2017, the Board granted to Dr. David an option to purchase an aggregate of 138,417 shares of our common stock. 27,118 shares subject to the option vest on December 31, 2018, subject to Dr. David's continued service to the Company, and the remaining shares are subject to the same performance-based vesting conditions as described above for Mr. Goeltz's performance-vesting option. Dr. David was also granted stock purchase rights to purchase an aggregate of 625,084 shares of the Company's common stock. 146,113 shares underlying the stock purchase right were fully vested upon purchase, and the remaining shares underlying the stock purchase right vest as to 25% on January 1, 2018 and as to 75% on January 1, 2019, subject to Dr. David's continued service to the Company on each such vesting date. Dr. David exercised his stock purchase rights in 2017 using promissory notes in aggregate principal amount of \$2,139,037, \$1,639,038 of which was forgiven and \$499,999 of which was repaid on April 4, 2018.

In connection with this offering, we have adopted a 2018 Incentive Award Plan, referred to below as the 2018 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. For additional information about the 2018 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; medical and dependent care flexible spending accounts; short-term and long-term disability insurance; and life and AD&D insurance.

Perquisites and Other Personal Benefits

Pursuant to Mr. Leonard's employment agreement, we provide a monthly allowance of \$7,500 for housing in the San Francisco Bay Area, where our principal offices are located. We also provide to Mr. Leonard reimbursement of commuting expenses to our principal offices. We believe these benefits are reasonable and are intended to facilitate Mr. Leonard being accessible to the business as required. Other than the housing and commuting benefits provided to Mr. Leonard, we do not provide perquisites or other personal benefits to our named executive officers.

No Tax Gross-Ups

In 2017, we did not make gross-up payments to cover our named executive officers' personal income taxes that pertained to any of the compensation or perquisites paid or provided by our company. However, in calendar year 2018, we will reimburse Mr. Leonard for taxes incurred by him in connection with our reimbursement of certain of his travel expenses.

Outstanding Equity Awards at Fiscal Year-End

The following table summarizes the number of shares of common stock and preferred stock underlying outstanding equity incentive plan awards for each named executive officer as of December 31, 2017.

Name	Vesting Commencement Date	Option Awards				Stock Awards				
		Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Options (#)	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (\$)(1)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (\$)
Keith R. Leonard Jr.	10/26/2016(2)	1,384,100	—	—	3.39	1/20/2027	—	—	—	—
Nathaniel E. David	12/31/2018(3)	27,118	—	—	3.42	9/25/2027	—	—	—	—
	N/A(4)	—	—	111,299	3.42	9/25/2027	—	—	—	—
	1/1/2018(5)	—	192,823	—	0.65	—	—	—	—	—
	1/1/2018(6)	—	570,678	—	0.66	—	—	—	—	—
	1/1/2018(7)	—	—	—	—	—	478,971	2,825,929	—	—
Robert C. Goeltz II	9/5/2017(8)	220,338	—	—	3.42	9/25/2027	—	—	—	—
	N/A(4)	—	—	115,254	3.42	9/25/2027	—	—	—	—

- (1) Amounts are calculated by multiplying the number of shares shown in the table by \$5.90, the estimated fair market value of our common stock as of December 31, 2017.
- (2) The option is exercisable immediately, in whole or in part, conditioned upon the executive entering into a restricted stock purchase agreement with respect to any unvested shares. The shares subject to the option vest and/or are released from the Company's repurchase option as to 1/48th of the shares subject to the option on each monthly anniversary of the vesting commencement date, subject to continued service through the applicable vesting date.
- (3) Vests in full on December 31, 2018, subject to continued service through such date.
- (4) Vests as to (i) 25% of the shares subject to the option upon the achievement of a clinical milestone, (ii) as to 25% of the shares subject to the option upon a financing or valuation milestone; and (iii) as to 50% of the shares subject to the option upon an additional financing or valuation milestone, subject to continued service through the applicable vesting date.
- (5) Represents a compensatory warrant to purchase shares of our Series A-1 convertible preferred stock. The warrant is exercisable during the period from January 1, 2018 to December 31, 2018.

- (6) Represents compensatory warrants to purchase shares of our Series A-2 convertible preferred stock. The warrants are exercisable during the period from January 1, 2018 to December 31, 2018.
- (7) Vests as to 25% of the restricted shares on January 1, 2018 and as to 75% of the restricted shares on January 1, 2019, subject to continued service through the applicable vesting date.
- (8) The option is exercisable immediately, in whole or in part, conditioned upon the executive entering into a restricted stock purchase agreement with respect to any unvested shares. The shares subject to the option vest and/or are released from the Company's repurchase option as to 25% of the shares subject to the option on the first anniversary of the vesting commencement date, and as to 1/48th of the shares subject to the option on each monthly anniversary thereafter, subject to continued service on each applicable vesting date.

Executive Compensation Arrangements

As of December 31, 2017, we were party to an employment agreement with Mr. Leonard and offer letters with Dr. David and Mr. Goeltz. In early 2018, we entered into new employment agreements with each of our named executive officers, which superseded in their entirety their prior employment arrangements with us.

Mr. Leonard. We entered into an employment agreement with Mr. Leonard on October 26, 2016 in connection with his appointment as our Chief Executive Officer, which sets forth Mr. Leonard's base salary, annual bonus opportunity and benefit plan participation. Pursuant to the employment agreement, Mr. Leonard also receives a housing allowance of \$7,500 per month for housing in the San Francisco Bay Area. The employment agreement also provides for the grant of an option to purchase a number of shares of the Company's common stock such that combined with Mr. Leonard's prior equity grants, Mr. Leonard would hold 5% of the Company's fully diluted shares, as well as a "top-up" option in the event of certain additional closings of the Company's Series B Preferred Stock financing. This option was granted in January 2017, as described above under "Equity Compensation," and vests as to 1/48th of the shares subject to the option each month from October 26, 2016, subject to Mr. Leonard's continued service to the Company on each applicable vesting date.

Pursuant to Mr. Leonard's employment agreement, in the event of a change in control of the Company, Mr. Leonard's equity awards will vest as to all of the shares subject thereto except for the lesser of (i) 6/48ths of the original number of shares underlying the award or (ii) the shares remaining unvested subject to the award as of the date of the change in control. The unvested portion of each such award will vest in substantially equal installments on each of the first six monthly anniversaries of the change in control, subject to Mr. Leonard's continued service to the Company on each applicable vesting date.

In addition, Mr. Leonard's employment agreement provides that in the event of his termination by the Company without "cause" or his resignation for "good reason" (each, as defined in the employment agreement), subject to his execution and delivery of a release of claims against the Company, Mr. Leonard will be entitled to receive: (i) continued base salary for 12 months following the date of termination; (ii) payment or reimbursement of continued healthcare coverage for up to 12 months following the date of termination; and (iii) 12 months' accelerated vesting of his equity awards, or, in the event such termination occurs within the period beginning three months prior to and ending 12 months following a change in control, full acceleration of all his equity awards.

Pursuant to the new employment agreement entered into with Mr. Leonard in early 2018, in the event of a change in control of the Company, Mr. Leonard's options outstanding as of the effective date of the employment agreement will vest as to the lesser of (i) 6/48ths of the original number of shares underlying the option or (ii) the remaining unvested shares underlying the options, and any then unvested shares will convert to a time-based option which will vest in substantially equal installments on each of the first six monthly anniversaries of the change in control, subject to Mr. Leonard's continued service through the applicable vesting date. In addition, each other of Mr. Leonard's future

equity awards (including any performance awards to the extent then-unvested based on the change in control price) will vest as to 50% of the then-unvested shares subject thereto, and the remaining unvested shares will convert to a time-based equity award which will vest in substantially equal installments on each of the first twelve monthly anniversaries of the change in control, subject to Mr. Leonard's continued service through the applicable vesting date. Mr. Leonard's new employment agreement provides for the same severance benefits as his current employment agreement in the event of a qualifying termination not in connection with a change in control. In addition, in the event of a termination without cause or resignation for good reason, in either case, that occurs within the period beginning three months prior to and ending 18 months following a change in control, Mr. Leonard will be eligible to receive: (i) a lump sum severance payment equal to his annual base salary and target annual bonus; (ii) payment or reimbursement of continued healthcare coverage for up to 12 months following the date of termination; and (iii) full acceleration of his equity awards.

Dr. David and Mr. Goeltz. We are party to offer letters with each of Dr. David and Mr. Goeltz, which set forth their initial base salaries, bonus opportunities, benefit plan participation and initial equity awards. Mr. Goeltz's offer letter provided for an initial stock option grant, which was granted in September 2017, covering an aggregate of 335,591 shares, including 220,338 time-vesting shares and 115,254 performance-vesting shares, as described above under "Equity Compensation."

Pursuant to the new employment agreements entered into with each of Dr. David and Mr. Goeltz in early 2018, in the event of a change in control of the Company, the executive's equity awards (including any performance awards to the extent then-unvested based on the change in control price) will vest as to 50% of the then-unvested shares subject thereto, and the remaining unvested shares will convert to a time-based equity award which will vest in substantially equal installments on each of the first twelve monthly anniversaries of the change in control, subject to Dr. David and Mr. Goeltz's continued service through the applicable vesting date. In addition, in the event of a termination without "cause" or resignation for "good reason" (each, as defined in the employment agreement), in either case, that occurs within the period beginning three months prior to and ending 18 months following a change in control, subject to his execution and delivery of a release of claims against the Company, the executive will be eligible to receive: (i) an amount equal to 0.75 times the sum of the executive's annual base salary and target bonus, payable in a lump sum; (ii) payment or reimbursement of continued healthcare coverage for up to nine months following the date of termination; and (iii) full acceleration of his equity awards.

Equity Compensation Plans

The following summarizes the material terms of the long-term incentive compensation plan in which our named executive officers will be eligible to participate following the consummation of this offering and our 2013 Equity Incentive Plan, referred to as the 2013 Plan, under which we have previously made periodic grants of equity and equity-based awards to our named executive officers and other key employees.

2018 Incentive Award Plan

The Board has adopted, and our stockholders have approved, the 2018 Incentive Award Plan, or 2018 Plan, which will be effective upon the effectiveness of the registration statement to which this prospectus relates. The principal purpose of the 2018 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 2018 Plan, as it is currently contemplated, are summarized below.

Share Reserve. Under the 2018 Plan, 4,289,936 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 and other stock-based awards, plus the number of shares remaining available for future awards under the 2013 Plan, as of the effective date of the 2018 Plan. The number of shares initially reserved for issuance or transfer pursuant to awards under the 2018 Plan will be increased by (i) the number of shares represented by awards outstanding under our 2013 Plan that are forfeited or lapse unexercised and which following the effective date are not issued under our 2013 Plan and (ii) an annual increase on the first day of each fiscal year beginning in 2019 and ending in 2028, equal to the lesser of (A) 5.0% 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 60.0 million 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 2018 Plan:

- to the extent that an award terminates, expires or lapses for any reason or an award is settled in cash without the delivery of shares, any shares subject to the award at such time will be available for future grants under the 2018 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 2018 Plan, such tendered or withheld shares will be available for future grants under the 2018 Plan;
- to the extent shares subject to stock appreciation rights are not issued in connection with the stock settlement of stock appreciation rights on exercise thereof, such shares will be available for future grants under the 2018 Plan; and
- to the extent permitted by applicable law or any exchange rule, 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 2018 Plan.

Administration. The compensation committee of our board of directors is expected to administer the 2018 Plan unless our board of directors assumes authority for administration. To the extent required by applicable law, the committee administering the plan is intended to qualify as a “non-employee director” for purposes of Rule 16b-3 under the Exchange Act. The 2018 Plan provides that the board or compensation committee may delegate its authority to grant awards to employees other than executive officers and certain senior executives of the company to a committee consisting of one or more members of our board of directors or one or more of our officers, other than awards made to our non-employee directors, which must be approved by our full board of directors.

Subject to the terms and conditions of the 2018 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 necessary or advisable for the administration of the 2018 Plan. The full board of directors will administer the 2018 Plan with respect to awards to non-employee directors.

Eligibility. Awards under the 2018 Plan may generally 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. Only employees of our company or certain of our subsidiaries may be granted incentive stock options, or ISOs.

Awards. The 2018 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 2018 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 2018 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 2018 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 Share Units* are denominated in shares/unit equivalents or cash, respectively, and may be linked to one or more performance or other criteria as determined by the plan 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 plan 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. Dividend equivalents may be paid currently or credited to an account for the participant, settled in cash or shares and subject to restrictions as determined by the plan administrator. In addition, dividend equivalents with respect to an award subject to vesting will either not be paid or credited or be accumulated and subject to vesting to the same extent as the related award.

Corporate Transactions. The plan administrator has broad discretion to take action under the 2018 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 plan administrator will make equitable adjustments to the 2018 Plan and outstanding awards.

In the event of a change in control, unless the plan 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 2018 Plan will be subject to accelerated vesting such that 100% of such awards will become vested and exercisable or payable, as applicable. The administrator is also authorized to provide for the acceleration, cash-out, termination, assumption, substitution or conversion of such awards in the event of a change in control.

Amendment and Termination. The administrator may terminate, amend or modify the 2018 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). 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 2018 Plan after the tenth anniversary of the earlier of the date the 2018 Plan is approved by our board or the date the 2018 Plan is approved by our stockholders, and no additional annual share increases to the 2018 Plan's aggregate share limit will occur from and after the tenth anniversary of the effective date of the 2018 Plan. Any award that is outstanding on the termination date of the 2018 Plan will remain in force according to the terms of the 2018 Plan and the applicable award agreement.

2013 Equity Incentive Plan

Our board of directors adopted, and our stockholders approved, the 2013 Plan effective as of June 10, 2013, which was subsequently amended on multiple occasions to increase the number of shares issuable under the 2013 Plan. The 2013 Plan provided for the grant of ISOs, NSOs, SARs, restricted stock, and restricted stock units. As of December 31, 2017, options to purchase 4,365,694 shares of our common stock at a weighted-average exercise price per share of \$3.07 and 918,595

shares of our common stock subject to restricted stock or restricted stock purchase awards remained outstanding under the 2013 Plan. Following this offering and in connection with the effectiveness of our 2018 Plan, the 2013 Plan will terminate and no further awards will be granted under the 2013 Plan. However, all outstanding awards will continue to be governed by their existing terms.

Administration. Our board of directors, the compensation committee or another committee thereof appointed by our board of directors, has the authority to administer the 2013 Plan and the awards granted under it. The administrator has the authority to select the employees to whom awards will be granted under the 2013 Plan, the number of shares to be subject to those awards under the 2013 Plan, and the terms and conditions of the awards granted. In addition, the administrator has the authority to construe and interpret the 2013 Plan and to adopt rules for the administration, interpretation and application of the 2013 Plan that are consistent with the terms of the 2013 Plan.

Awards. The 2013 Plan provides that the administrator may grant or issue options, including ISOs and NSOs, stock appreciation rights, restricted stock and restricted stock units to employees, consultants and directors; provided that only employees may be granted incentive stock options.

- *Stock Options.* The 2013 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 2013 Plan provides for the grant of SARs. Each SAR will be governed by a stock appreciation right agreement and 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 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 2013 Plan provides for the grant of restricted stock awards. Each restricted stock award will be governed by a restricted stock award agreement, which will details 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 2013 Plan provides that we may issue restricted stock unit awards which may be settled in either cash or 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 2013 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 awards will terminate in exchange for cash or other property. In addition, in the event of a change in control where the acquirer does not assume or replace awards granted, prior to the consummation of such transaction, awards issued under the 2013 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.

Amendment and Termination. Our board of directors may amend or terminate the 2013 Plan or any portion thereof 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 2013 Plan shall 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 2018 Plan, the 2013 Plan will terminate and no further awards will be granted under the 2013 Plan.

2018 Employee Stock Purchase Plan

The Board has adopted, and our stockholders approved, the 2018 Employee Stock Purchase Plan, which we refer to as our ESPP, which will be effective upon the effectiveness of the registration statement to which this prospectus relates. The ESPP is designed to allow our eligible employees to purchase shares of our common stock, at semi-annual 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 (a) 536,242 shares of common stock and (b) an annual increase on the first day of each year beginning in 2019 and ending in 2028, equal to the lesser of (i) 1.0% of the shares of common stock outstanding (on an as converted basis) on the last day of the immediately preceding fiscal year and (ii) such number of shares of common stock as determined by our board of directors; provided, however, no more than 8.0 million 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.

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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 15% 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 3,000 shares in each offering period and may not subscribe for more than \$25,000 in fair market value of shares of our common stock (determined at the time the option is granted) during any calendar year. 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 pursuant 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

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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 sale of 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.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The following is a description of transactions since January 1, 2015 to which we have been a party, in which the amount involved exceeds \$120,000, and in which any of our directors, executive officers or beneficial owners of more than 5% of our capital stock, or an affiliate or immediate family member thereof, had or will have a direct or indirect material interest.

Sales and Purchases of Securities**Series A-2 Convertible Preferred Stock Financing**

In January 2015, we issued an aggregate of 2,568,049 shares of our Series A-2 convertible preferred stock at \$0.876 per share for aggregate proceeds to us of approximately \$2.3 million.

The table below sets forth the number of shares of Series A-2 convertible preferred stock sold to our directors, executive officers or owners of more than 5% of a class of our capital stock, or an affiliate or immediate family member thereof:

Name	Number of Shares of Series A-2 Convertible Preferred Stock	Aggregate Purchase Price (\$)
ARCH Venture Fund VII, L.P.(1)	1,080,203	946,420
Venrock Associates VII, L.P.(2)	421,617	369,400
Venrock Partners VII, L.P.(2)	34,925	30,600
WuXi PharmaTech Healthcare Fund I LP(3)	414,332	363,017
Nathaniel E. David(4)	285,338	250,000
Mayo Clinic(5)	207,870	182,126

- (1) ARCH Venture Fund VII, L.P. and its affiliated funds beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the Series A-2 convertible preferred stock financing. Robert T. Nelsen and Kristina M. Burow are currently, and were at the time of the Series A-2 convertible preferred stock financing, members of our board of directors and Managing Directors of ARCH Venture Partners, which is an affiliate of ARCH Venture Fund VII, L.P. and its affiliated funds.
- (2) Venrock Associates VII, L.P., Venrock Partners VII, L.P. and their affiliated funds were not beneficial owners of (in the aggregate) more than 5% of our outstanding capital stock at the time of the Series A-2 convertible preferred stock financing.
- (3) WuXi PharmaTech Healthcare Fund I LP and its affiliated funds beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the Series A-2 convertible preferred stock financing.
- (4) Nathaniel E. David is currently, and was at the time of the Series A-2 convertible preferred stock financing, our President and a member of our board of directors and beneficially owned (in the aggregate) more than 5% of our outstanding capital stock.
- (5) Mayo Clinic and its affiliates beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the Series A-2 convertible preferred stock financing.

On January 20, 2015, we issued to Dr. David a warrant to purchase Series A-2 convertible preferred stock for 380,452 shares for an exercise price of \$0.66.

Convertible Promissory Note Financing (June 2015)

In June 2015, we entered into a note purchase agreement pursuant to which we issued, in two tranches, subordinated convertible promissory notes, or the A-2 Notes, in an aggregate principal amount of \$4.0 million. The A-2 Notes provided for an annual interest rate of 5.0% and a maturity date of June 1, 2017. Under the terms of the A-2 Notes, under certain circumstances, the unpaid principal of the A-2 Notes, including any accrued but unpaid interest thereon, would convert into preferred stock

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upon the closing of a future preferred stock financing that met specified criteria. In February 2016, the outstanding principal under the A-2 Notes, plus \$92,877 of accrued interest, converted pursuant to an election by the holders thereof into 4,671,430 shares of Series A-2 convertible preferred stock at a rate of \$0.876 per share in full payment for the note and accrued interest of such notes. The table below sets forth the principal amount of the A-2 Notes and the number of shares of Series A-2 convertible preferred stock issued to our directors, executive officers or beneficial owners of more than 5% of a class of our capital stock, or an affiliate or immediate family member thereof upon conversion of outstanding principal and unpaid, accrued interest under the A-2 Notes:

Name	Note Principal (\$)	Number of Shares of Series A-2 Convertible Preferred Stock
ARCH Venture Fund VII, L.P.(1)	1,537,805	1,795,938
Venrock Associates VII, L.P.(2)	902,829	1,054,375
Venrock Partners VII, L.P.(2)	74,787	87,341
WuXi PharmaTech Healthcare Fund I LP(3)	701,586	819,352
Nathaniel E. David(4)	431,007	503,355
Mayo Clinic(5)	351,986	411,069

- (1) ARCH Venture Fund VII, L.P. and its affiliated funds beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the A-2 Notes financing and at the time of the conversion of the A-2 Notes into Series A-2 convertible preferred stock. Robert T. Nelsen and Kristina M. Burow are currently, and were at the time of the A-2 Notes financing, members of our board of directors and Managing Directors of ARCH Venture Partners, which is an affiliate of ARCH Venture Fund VII, L.P. and its affiliated funds.
- (2) Venrock Associates VII, L.P., Venrock Partners VII, L.P. and their affiliated funds were not beneficial owners of (in the aggregate) more than 5% of our outstanding capital stock at the time of the A-2 Notes financing or at the time of the conversion of the A-2 Notes into Series A-2 convertible preferred stock. Camille D. Samuels is currently, and was at the time of the A-2 Notes financing, a member of our board of directors and is affiliated with each of Venrock Associates VII, L.P. and Venrock Partners VII, L.P.
- (3) WuXi PharmaTech Healthcare Fund I LP and its affiliated funds beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the A-2 Notes financing and at the time of the conversion of the A-2 Notes into Series A-2 convertible preferred stock.
- (4) Nathaniel E. David is currently, and was at the time of the A-2 Notes financing and at the time of the conversion of the A-2 Notes into Series A-2 convertible preferred stock, our President and a member of our board of directors and beneficially owned (in the aggregate) more than 5% of our outstanding capital stock.
- (5) Mayo Clinic and its affiliates beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the A-2 Notes financing and at the time of the conversion of the A-2 Notes into Series A-2 convertible preferred stock.

Convertible Promissory Note Financing (February 2016)

In February 2016, we entered into a note purchase agreement pursuant to which we issued, in three tranches, subordinated convertible promissory notes, or the First Series B Bridge Notes, in an aggregate principal amount of approximately \$7.3 million. The First Series B Bridge Notes provided for an annual interest rate of 5.0% and a maturity date of December 31, 2017. Under the terms of the First Series B Bridge Notes, under certain circumstances, the unpaid principal of the First Series B Bridge Notes, including any accrued but unpaid interest thereon, would convert into preferred stock upon the closing of a future preferred stock financing that met specified criteria. Such conversion would be at a discount to the per share price of the preferred stock sold in the financing. In October 2016, as part of the issuance of Series B convertible preferred stock, the outstanding principal under the First Series B Bridge Notes, plus \$189,030 of accrued interest, converted into 2,147,431 shares of Series B convertible preferred stock at a rate of \$3.4642 per share in full payment for the note and accrued interest of such notes. The table below sets forth the principal amount of the First Series B Bridge Notes and the number of shares of Series B convertible preferred stock issued to our directors,

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executive officers or beneficial owners of more than 5% of a class of our capital stock, or an affiliate or immediate family member thereof upon conversion of outstanding principal and unpaid, accrued interest under the Series B Bridge Notes:

Name	Note Principal (\$)	Number of Shares of Series B Convertible Preferred Stock
ARCH Venture Fund VII, L.P.(1)	2,430,872	720,019
Venrock Associates VII, L.P.(2)	1,234,134	365,548
Venrock Partners VII, L.P.(2)	102,232	30,280
WuXi PharmaTech Healthcare Fund I LP(3)	982,762	291,092
Nathaniel E. David(4)	750,000	222,148
Mayo Clinic (5)	750,000	222,148
Pathfinder Investment Fund, LLC(6)	500,000	148,448
Andalucia Ventures, LLC(7)	250,000	73,700
Jamie Dananberg(8)	250,000	74,048

- (1) ARCH Venture Fund VII, L.P. and its affiliated funds beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the First Series B Bridge Notes financing. Robert T. Nelsen and Kristina M. Burow are currently, and were at the time of the First Series B Bridge Notes financing, members of our board of directors and Managing Directors of ARCH Venture Partners, which is an affiliate of ARCH Venture Fund VII, L.P. and its affiliated funds.
- (2) Venrock Associates VII, L.P., Venrock Partners VII, L.P. and their affiliated funds became beneficial owners of (in the aggregate) more than 5% of our outstanding capital stock upon conversion of the First Series B Bridge Notes in the initial closing of the Series B convertible preferred stock financing. Camille D. Samuels is currently, and was at the time of the First Series B Bridge Notes financing, a member of our board of directors and is affiliated with each of Venrock Associates VII, L.P. and Venrock Partners VII, L.P.
- (3) WuXi PharmaTech Healthcare Fund I LP and its affiliated funds beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the First Series B Bridge Notes financing.
- (4) Nathaniel E. David is currently, and was at the time of the First Series B Bridge Notes financing, our President and a member of our board of directors and beneficially owned (in the aggregate) more than 5% of our outstanding capital stock.
- (5) Mayo Clinic and its affiliates beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the First Series B Bridge Notes financing.
- (6) Keith R. Leonard Jr. is currently, and was at the time of the First Series B Bridge Notes financing, Chairman of our board of directors and is an affiliate of Pathfinder Investment Fund, LLC.
- (7) Keith R. Leonard Jr. is currently, and was at the time of the First Series B Bridge Notes financing, Chairman of our board of directors and is an affiliate of Andalucia Ventures LLC.
- (8) Jamie Dananberg is currently, and was at the time of the First Series B Bridge Notes financing, one of our executive officers.

Convertible Promissory Note Financing (July 2016)

In July 2016, we entered into a note purchase agreement pursuant to which we issued, in three tranches, subordinated convertible promissory notes, or the Second Series B Bridge Notes, in an aggregate principal amount of approximately \$9.6 million. The Second Series B Bridge Notes provided for an annual interest rate of 5.0% and a maturity date of July 11, 2017. Under the terms of the Second Series B Bridge Notes, under certain circumstances, the unpaid principal of the Second Series B Bridge Notes, including any accrued but unpaid interest thereon, would convert into preferred stock upon the closing of a future preferred stock financing that met specified criteria. Such conversion would be at a discount to the per share price of the preferred stock sold in the financing. In October 2016, as part of the issuance of Series B convertible preferred stock, the outstanding principal under the Second Series B Bridge Notes, plus \$72,817 of accrued interest, converted into 1,568,237 shares of Series B convertible preferred stock at a rate of either \$6.062 or \$8.280 per share, depending on each

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respective investor's level of participation in the Series B convertible preferred stock financing, in full payment for the note and accrued interest of such notes. The table below sets forth the principal amount of the Second Series B Bridge Notes and the number of shares of Series B convertible preferred stock issued to our directors, executive officers or beneficial owners of more than 5% of a class of our capital stock, or an affiliate or immediate family member thereof upon conversion of outstanding principal and unpaid, accrued interest under the Second Series B Bridge Notes:

Name	Note Principal (\$)	Number of Shares of Series B Convertible Preferred Stock
ARCH Venture Fund VII, L.P.(1)	4,136,872	687,320
ARCH Venture Fund VIII Overage, L.P.(1)	1,500,000	249,581
Venrock Associates VII, L.P.(2)	1,380,109	229,633
Venrock Partners VII, L.P. (2)	119,891	19,948
WuXi PharmaTech Healthcare Fund I LP(3)	1,000,000	166,184
Andalucia Ventures, LLC(4)	750,000	124,200
Mayo Clinic(5)	750,000	91,371

- (1) ARCH Venture Fund VII, L.P. and its affiliated funds beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the Second Series B Bridge Notes financing. Robert T. Nelsen and Kristina M. Burow are currently, and were at the time of the Second Series B Bridge Notes financing, members of our board of directors and Managing Directors of ARCH Venture Partners, which is an affiliate of ARCH Venture Fund VII, L.P. and its affiliated funds.
- (2) Venrock Associates VII, L.P., Venrock Partners VII, L.P. and their affiliated funds became beneficial owners of (in the aggregate) more than 5% of our outstanding capital stock upon conversion of the Second Series B Bridge Notes in the initial closing of the Series B convertible preferred stock financing. Camille D. Samuels is currently, and was at the time of the Second Series B Bridge Notes financing, a member of our board of directors and is affiliated with each of Venrock Associates VII, L.P. and Venrock Partners VII, L.P.
- (3) WuXi PharmaTech Healthcare Fund I LP and its affiliated funds beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the Second Series B Bridge Notes financing.
- (4) Keith R. Leonard is currently, and was at the time of the Second Series B Bridge Notes financing, Chairman of our board of directors and is an affiliate of Andalucia Ventures LLC.
- (5) Mayo Clinic and its affiliates beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the Second Series B Bridge Notes financing.

Series B Convertible Preferred Stock Financing

In a series of closings held between October 2016 and June 2017, we issued an aggregate of 11,058,701 shares of our Series B convertible preferred stock at \$12.12 per share for aggregate cash proceeds to us of approximately \$134.1 million.

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The table below sets forth the aggregate number of shares of Series B convertible preferred stock sold to our directors, executive officers or owners of more than 5% of a class of our capital stock, or an affiliate or immediate family member thereof:

<u>Name</u>	<u>Number of Shares of Series B Convertible Preferred Stock</u>	<u>Aggregate Purchase Price (\$)</u>
Entities Associated with Baillie Gifford & Co(1)	2,226,895	27,000,000
ARCH Venture Fund VII, L.P.(2)	659,821	8,000,000
ARCH Venture Fund VIII Overage, L.P.(2)	1,237,164	15,000,000
Venrock Associates VII, L.P.(3)	342,756	4,155,748
Venrock Partners VII, L.P.(3)	28,392	344,249
WuXi PharmaTech Healthcare Fund I LP(4)	247,432	3,000,000
Mayo Clinic(5)	61,857	749,997
Andalucia Ventures, LLC(6)	185,574	2,249,999

- (1) Entities associated with Baillie Gifford & Co. and its affiliates became beneficial owners of (in the aggregate) more than 5% of our outstanding capital stock upon the initial closing of the Series B convertible preferred stock financing.
- (2) ARCH Venture Fund VII, L.P. and its affiliated funds beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the Series B convertible preferred stock financing. Robert T. Nelsen and Kristina M. Burow are currently, and were at the time of the Series B convertible preferred stock financing, members of our board of directors and are Managing Directors of ARCH Venture Partners, which is an affiliate of ARCH Venture Fund VII, L.P. and its affiliated funds.
- (3) Venrock Associates VII, L.P., Venrock Partners VII, L.P. and their affiliated funds became beneficial owners of (in the aggregate) more than 5% of our outstanding capital stock upon the initial closing of the Series B convertible preferred stock financing. Camille D. Samuels is currently, and was at the time of the Series B convertible preferred stock financing, a member of our board of directors and is affiliated with each of Venrock Associates VII, L.P. and Venrock Partners VII, L.P.
- (4) WuXi PharmaTech Healthcare Fund I LP and its affiliated funds beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the Series B convertible preferred stock financing.
- (5) Mayo Clinic and its affiliates beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the Second Series B convertible preferred stock financing.
- (6) Keith R. Leonard Jr. is currently, and was at the time of the Series B convertible preferred stock financing, our Chief Executive Officer and Chairman of our board of directors and is an affiliate of Andalucia Ventures LLC.

Series C Convertible Preferred Stock Financing

In March and April 2018, we sold and issued an aggregate of 3,913,425 shares of our Series C convertible preferred stock at \$15.3317 per share for net cash proceeds to us of approximately \$59.9 million.

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The table below sets forth the aggregate number of shares of Series C convertible preferred stock sold to our directors, executive officers or owners of more than 5% of a class of our capital stock, or an affiliate or immediate family member thereof:

Name	Number of Shares of Series C Convertible Preferred Stock	Aggregate Purchase Price (\$)
Entities Associated with Baillie Gifford & Co. (1)	326,119	\$ 4,999,992
ARCH Venture Fund VIII Overage, L.P.(2)	195,672	\$ 2,999,995
Venrock Associates VII, L.P.(3)	60,234	\$ 923,501
Venrock Partners VII, L.P.(3)	4,989	\$ 76,498
Entities Associated with Fidelity Growth Company Commingled Pool(4)	978,360	\$14,999,992
Nathaniel E. David(5)	1,630	\$ 24,999
Robert C. Goeltz(6)	1,630	\$ 24,999
Jamie Dananberg(7)	1,630	\$ 24,999
Keith R. Leonard Jr.(8)	1,630	\$ 24,999
Paul L. Berns(9)	3,261	\$ 24,999

- (1) Entities associated with Baillie Gifford & Co. and its affiliates owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the Series C convertible preferred stock financing.
- (2) ARCH Venture Fund VII, L.P. and its affiliated funds beneficially owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the Series C convertible preferred stock financing. Robert T. Nelsen and Kristina M. Burow are currently, and were at the time of the Series C convertible preferred stock financing, members of our board of directors and are Managing Directors of ARCH Venture Partners, which is an affiliate of ARCH Venture Fund VII, L.P. and its affiliated funds.
- (3) Venrock Associates VII, L.P., Venrock Partners VII, L.P. and their affiliated funds owned (in the aggregate) more than 5% of our outstanding capital stock at the time of the Series C convertible preferred stock financing. Camille D. Samuels is currently, and was at the time of the Series C convertible preferred stock financing, a member of our board of directors and is affiliated with each of Venrock Associates VI, L.P. and Venrock Partners VII, L.P.
- (4) Entities associated with Fidelity Growth Company Commingled Pool and its affiliates became beneficial owners of (in the aggregate) more than 5% of our outstanding capital stock upon the closing of the Series C convertible preferred stock financing.
- (5) Nathaniel E. David is currently, and was at the time of the Series C convertible preferred stock financing, our President and a member of our board of directors and beneficially owned (in the aggregate) more than 5% of our outstanding capital stock.
- (6) Robert C. Goeltz is currently, and was at the time of the Series C convertible preferred stock financing, one of our executive officers.
- (7) Jamie Dananberg is currently, and was at the time of the Series C convertible preferred stock financing, one of our executive officers.
- (8) Keith R. Leonard Jr. is currently, and was at the time of the Series C convertible preferred stock financing, our Chief Executive Officer and Chairman of our board of directors.
- (9) Paul L. Berns is currently, and was at the time of the Series C convertible preferred stock financing, a member of our board of directors.

Director and Executive Officer Compensation

Please see "Director Compensation" and "Executive Compensation" for information regarding the compensation of our directors and executive officers.

Employment Agreements

We have entered into employment agreements with our executive officers. For more information regarding these agreements, see “Executive Compensation—Narrative to Summary Compensation Table and Outstanding Equity Awards at 2017 Fiscal Year End.”

Indemnification Agreements and Directors’ and Officers’ Liability Insurance

We have entered into or intend to enter into indemnification agreements with each of our directors and executive officers. These agreements will require us to, among other things, indemnify each director and executive officer to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys’ fees, judgments, penalties fines and settlement amounts incurred by the director or executive officer in any action or proceeding, including any action or proceeding by or in right of us, arising out of the person’s services as a director or executive officer. We have obtained an insurance policy that insures our directors and officers against certain liabilities, including liabilities arising under applicable securities laws. For additional information see “Management—Limitation of Liability and Indemnification Matters.”

Investors’ Rights Agreement

We entered into an amended and restated investors’ rights agreement with the purchasers of our outstanding convertible preferred stock, including entities with which certain of our directors are affiliated. Following the consummation of this offering, the holders of approximately 32.1 million shares of our common stock, including the shares of common stock issuable upon the automatic conversion of our Series A-1, Series A-2, Series B and Series C 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 “Description of Capital Stock—Registration Rights.” The investors’ rights agreement also provides for a right of first refusal in favor of certain holders of 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

We entered into an amended and restated voting agreement with certain holders of our common stock and convertible preferred stock. Upon the consummation of this offering, the amended and restated voting agreement will terminate. For a description of the amended and restated voting agreement, see “Management—Board Composition—Voting Arrangements.”

Right of First Refusal and Co-Sale Agreement

We entered into an amended and restated right of first refusal and co-sale agreement with certain holders of our common stock and 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.

Promissory Notes

In October 2017, we accepted promissory notes in the principal amounts of \$1,639,038 and \$499,999 from Dr. David, our Co-Founder and President, as consideration for the purchase price of 478,971 and 146,113, respectively, shares of our common stock. The note accrues interest at a rate of 1.85% per annum. Of the aggregate principal amount of \$2,139,037, \$1,639,038 of the promissory notes was forgiven and the remaining promissory note of \$499,999 was repaid on April 4, 2018.

In January 2018, we accepted a promissory note in the principal amount of \$188,500 from Mr. Goeltz, our Chief Financial Officer, as consideration for the purchase price of 55,084 shares of our common stock. The note accrues interest at a rate of 2.5% per annum. The promissory note was repaid on April 4, 2018.

Other Transactions

In 2015, we entered into a consulting agreement with Bradley Backes, the husband of Kristina M. Burow, one of our directors. In connection with this agreement, Dr. Backes is paid an hourly consulting fee and was granted an option to purchase up to 80,296 shares of our common stock, which was subject to vesting in three tranches. An initial tranche vested immediately upon grant, a second tranche vested in 2016, and the final tranche is subject to vesting upon the achievement of certain milestones. In 2017, Dr. Backes received approximately \$62,200 in cash compensation.

In 2016, we entered into a services agreement with Wuxi AppTec (Hong Kong) Limited, an affiliate of Wuxi PharmaTech Healthcare Fund I L.P., a beneficial owner of more than 5% of our outstanding capital stock. The company incurred a total of \$36,000 and \$0.6 million of research and development expenses during the years ended December 31, 2016 and 2017, respectively, related to this services agreement.

We are party to an exclusive license agreement with an entity affiliated with the Mayo Clinic, or Mayo, giving us rights to a patent portfolio co-owned by the Buck Institute for Research on Aging, The John Hopkins University, Mayo and us to develop and commercialize licensed products for the treatment of senescence-related diseases in therapeutic areas including osteoarthritis, ophthalmology, and pulmonary disease. See “Business—Licenses and Collaborations—Additional License Agreements.”

Policies and Procedures for Related Party 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 information relating to the beneficial ownership of our common stock as of April 11, 2018, by:

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

The number of shares beneficially owned by each entity, person, director or executive officer is determined in accordance with the rules of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under such rules, beneficial ownership includes any shares over which the individual has sole or shared voting power or investment power as well as any shares that the individual has the right to acquire within 60 days after April 11, 2018 through the exercise of any stock option, warrants or other rights. Except as otherwise indicated, and subject to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all shares of common stock held by that person.

The following table does not reflect any shares of common stock that may be purchased pursuant to our directed share program described under “Underwriting—Directed Share Program.”

The percentage of shares beneficially owned is computed on the basis of 37,313,552 shares of our common stock outstanding as of April 11, 2018, which reflects the assumed conversion of all of our outstanding shares of Series A-1, Series A-2, Series B and Series C convertible preferred stock into an aggregate of 32,073,149 shares of common stock. Shares of our common stock that a person has the right to acquire within 60 days after April 11, 2018 are deemed outstanding for purposes of computing the percentage ownership of the person holding such rights, but are not deemed outstanding for purposes of computing the percentage ownership of any other person, except with respect to the percentage ownership of all directors and executive officers as a group. Unless otherwise indicated

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below, the address for each beneficial owner listed is c/o Unity Biotechnology, Inc., 3280 Bayshore Blvd, Brisbane, California 94005.

Name of Beneficial Owner	Beneficial Ownership Prior to this Offering				Beneficial Ownership After this Offering	
	Number of Outstanding Shares Beneficially Owned	Number of Shares Exercisable Within 60 Days	Number of Shares Beneficially Owned	Percentage of Beneficial Ownership	Number of Shares Beneficially Owned	Percentage of Beneficial Ownership
5% and Greater Stockholders:						
Entities Associated with ARCH Venture Partners (1)	10,048,181	—	10,048,181	26.9%	10,048,181	23.7%
WuXi PharmaTech Healthcare Fund I LP (2)	3,251,142	—	3,251,142	8.7%	3,251,142	7.7%
Entities Associated with Venrock (3)	2,680,039	—	2,680,039	7.2%	2,680,039	6.3%
Entities Associated with the Mayo Clinic (4)	2,512,821	—	2,512,821	6.7%	2,512,821	5.9%
Entities Associated with Baillie Gifford & Co (5)	2,553,014	—	2,553,014	6.8%	2,553,014	6.0%
Entities Associated with Fidelity Growth Company Commingled Pool (6)	2,215,523	—	2,215,523	5.9%	2,215,523	5.2%
Named Executive Officers and Directors:						
Keith R. Leonard Jr. (7)	835,247	1,471,766	2,307,013	5.9%	2,307,013	5.3%
Nathaniel E. David, Ph.D. (8)	2,278,656	901,917	3,180,573	8.3%	3,180,573	7.4%
Robert C. Goeltz II (9)	96,348	335,591	431,939	1.1%	431,939	1.0%
Paul L. Berns (10)	3,261	—	3,261	*	3,261	*
Kristina M. Burow (11)	112,994	10,805	123,799	*	123,799	*
Graham K. Cooper (12)	84,745	—	84,745	*	84,745	*
David L. Lacey (13)	—	84,745	84,745	*	84,745	*
Robert T. Nelsen (14)	10,048,181	—	10,048,181	26.9%	10,048,181	23.7%
Camille D. Samuels (15)	10,169	—	10,169	*	10,169	*
All directors and executive officers as a group (12 persons) (16)	14,212,667	3,033,636	17,246,303	42.7%	17,246,303	38.0%

* Indicates beneficial ownership of less than 1% of the total outstanding common stock.

(1) Consists of (i) 39,547 shares of common stock (ii) 2,030,625 shares of common stock issuable upon the conversion of Series A-1 convertible preferred stock, 4,228,432 shares of common stock issuable upon the conversion of Series A-2 convertible preferred stock and 2,067,160 shares of common stock issuable upon the conversion of Series B convertible preferred stock held by ARCH Venture Fund VII, L.P. ("ARCH VII"), and (iii) 1,486,745 shares of common stock issuable upon the conversion of Series B convertible preferred stock and 195,672 shares of common stock issuable upon the conversion of Series C convertible preferred stock held by ARCH Venture Fund VIII Overage, L.P. ("ARCH Overage"). ARCH Venture Partners VII, L.P. (the "GPLP"), as the sole general partner of ARCH VII, may be deemed to beneficially own certain of the shares held by ARCH VII. The GPLP disclaims beneficial ownership of all shares held by ARCH VII in which the GPLP does not have an actual pecuniary interest. ARCH Venture Partners VII, LLC ("GPLLC"), as the sole general partner of ARCH Overage and GPLP, may be deemed to beneficially own the shares held by ARCH VII and ARCH Overage. As managing directors of GPLLC, each of Keith Crandell, Clinton Bybee and Robert T. Nelsen (the "ARCH Managing Directors") may be deemed to share the power to direct the disposition and vote of, and therefore to beneficially own, the shares held by ARCH VII and ARCH Overage.

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The ARCH Managing Directors disclaim beneficial ownership of all shares held by ARCH VII and ARCH Overage except to the extent of any actual pecuniary interest. The address of ARCH VII, ARCH Overage, GPLP, GPLLC and the ARCH Managing Directors is 8725 West Higgins Road, Suite 290, Chicago, Illinois 60631.

- (2) Consists of (i) 289,234 shares of common stock issuable upon conversion of Series A-1 convertible preferred stock, 2,257,200 shares of common stock issuable upon conversion of Series A-2 convertible preferred stock and 704,708 shares of common stock issuable upon conversion of Series B convertible preferred stock held by WuXi PharmaTech Healthcare Fund I LP (“WuXi”). Wuxi AppTec (Hong Kong) Limited (“WuXi AppTec”), as the sole general partner of WuXi, may be deemed to beneficially own the shares held by WuXi. As the chairman and chief executive officer of WuXi AppTec, Dr. Ge Li may be deemed to hold the power to direct the disposition and vote of, and therefore to own the shares held by WuXi. Dr. Li disclaims beneficial ownership of all shares held by WuXi except to the extent of any actual pecuniary interest. The address for WuXi is 288 Fute Zhong Road, Waigaoqiao Free Trade Zone, Shanghai 200131 PRC.
- (3) Consists of (i) 1,475,992 shares of common stock issuable upon conversion of Series A-2 convertible preferred stock, 937,937 shares of common stock issuable upon conversion of Series B convertible preferred stock and 60,234 shares of common stock issuable upon the conversion of Series C convertible preferred stock held by Venrock Associates VII, L.P. (“Venrock Associates”) and (ii) 122,266 shares of common stock issuable upon conversion of Series A-2 convertible preferred stock, 78,621 shares of common stock issuable upon conversion of Series B convertible preferred stock and 4,989 shares of common stock issuable upon the conversion of Series C convertible preferred stock held by Venrock Partners VII, L.P. (“Venrock Partners”). Venrock Management VII, LLC (“Venrock Management”) is the sole general partner of Venrock Associates and Venrock Partners. As sole general partner for each of Venrock Associates and Venrock Partners, Venrock Management may be deemed to share the power to direct the disposition and vote of, and therefore to own the shares held by Venrock Associates and Venrock Partners. Investment and voting decisions by Venrock Management are made jointly by three or more individuals who are managing directors, and therefore no individual managing director of Venrock Management is the beneficial owner of the shares held by Venrock Associates and Venrock Partners. Venrock Management expressly disclaims beneficial ownership over all shares held by Venrock Associates and Venrock Partners, except to the extent of their indirect pecuniary interest therein. The address for Venrock Associates and Venrock Partners is 3340 Hillview Avenue, Palo Alto, California 94304.
- (4) Consists of (i) 745,762 shares of common stock and 114,135 shares of common stock issuable upon conversion of Series A-2 convertible preferred stock held by Mayo Foundation for Medical Education and Research (“Mayo Foundation”) and (ii) 289,234 shares of common stock issuable upon conversion of Series A-1 convertible preferred stock, 988,313 shares of common stock issuable upon conversion of Series A-2 convertible preferred stock and 375,377 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Mayo Clinic. As Treasurer and Co-Chief Investment Officer of Mayo Clinic, Harry N. Hoffman may be deemed to have the sole power to direct the disposition and vote of, and therefore to own the shares held by Mayo Foundation and Mayo Clinic. Mr. Hoffman disclaims beneficial ownership of all shares held by Mayo Foundation and Mayo Clinic, except to the extent of any actual pecuniary interest. The address for Mayo Foundation and Mayo Clinic is 200 First Street SW, Rochester, Minnesota 55905.
- (5) Consists of (i) 2,061,940 shares of common stock issuable upon conversion of Series B convertible preferred stock and 301,963 shares of common stock issuable upon the conversion of Series C convertible preferred stock held by Scottish Mortgage Investment Trust PLC (“SMIT”) and (ii) 164,955 shares of common stock issuable upon conversion of Series B convertible preferred stock and 24,156 shares of common stock issuable upon the conversion of Series C convertible preferred stock held by Edinburgh Worldwide Investment Trust PLC (“EWIT”). As agent for each of SMIT and EWIT, Baillie Gifford & Co. may be deemed to share the power to direct the disposition and vote of, and therefore to own the shares held by SMIT and EWIT. Investment and voting decisions by Baillie Gifford & Co. are made jointly by three or more individuals who are managing directors, and therefore no individual managing director of Baillie Gifford & Co. is the beneficial owner of the shares held by SMIT and EWIT. Baillie Gifford & Co. disclaims beneficial ownership of all shares held by SMIT and EWIT. Each of SMIT and EWIT are publicly traded companies. The address for SMIT and EWIT is c/o Baillie Gifford & Co., Calton Square, 1 Greenside Row, Edinburgh EH1 3AN, United Kingdom.

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- (6) Consists of (i) 218,808 shares of common stock issuable upon conversion of Series B convertible preferred stock and 89,552 shares of common stock issuable upon conversion of Series C convertible preferred stock held by Fidelity Mt. Vernon Street Trust: Fidelity Series Growth Company Fund ("FSGCF"), (ii) 267,638 shares of common stock issuable upon conversion of Series B convertible preferred stock and 445,921 shares of common stock issuable upon conversion of Series C convertible preferred stock held by Fidelity Growth Company Commingled Pool ("FGCCP") and (iii) 750,717 shares of common stock issuable upon conversion of Series B convertible preferred stock and 442,887 shares of common stock issuable upon conversion of Series C convertible preferred stock held by Fidelity Mr. Vernon Street Trust: Fidelity Growth Company Fund ("FGCF" and, together with FGCCP and FSGCF, the "Funds"). The Funds are managed by direct or indirect subsidiaries of FMR LLC. Abigail P. Johnson is a Director, the Vice Chairman, the Chief Executive Officer and the President of FMR LLC. Members of the Johnson family, including Abigail P. Johnson, are the predominant owners, directly or through trusts, of Series B voting common shares of FMR LLC, representing 49% of the voting power of FMR LLC. The Johnson family group and all other Series B shareholders have entered into a shareholders' voting agreement under which all Series B voting common shares will be voted in accordance with the majority vote of Series B voting common shares. Accordingly, through their ownership of voting common shares and the execution of the shareholders' voting agreement, members of the Johnson family may be deemed, under the Investment Company Act of 1940, to form a controlling group with respect to FMR LLC. Neither FMR LLC nor Abigail P. Johnson has the sole power to vote or direct the voting of the shares owned directly by the various investment companies registered under the Investment Company Act ("Fidelity Funds") advised by Fidelity Management & Research Company ("FMR Co."), a wholly owned subsidiary of FMR LLC, which power resides with the Fidelity Funds' Boards of Trustees. Fidelity Management & Research Company carries out the voting of the shares under written guidelines established by the Fidelity Funds' Boards of Trustees. The address of FMR LLC is 245 Summer Street, V13H, Boston, Massachusetts 02110.
- (7) Consists of (i) 149,152 shares of common stock, (ii) 152,542 shares of common stock held by Keith Richard Leonard, Jr. 2017 Retained Annuity Trust, (iv) 383,475 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Andalucia Ventures, LLC, (v) 148,448 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Pathfinder Investment Fund, LLC, (vi) 1,630 shares of common stock issuable upon conversion of Series C convertible preferred stock, and (vii) 1,471,766 shares of common stock that may be acquired pursuant to the exercise of stock options within 60 days of April 11, 2018.
- (8) Consists of (i) 980,846 shares of common stock, (ii) 1,074,032 shares of common stock issuable upon conversion of Series A-2 convertible preferred stock, (iii) 192,823 shares of common stock issuable upon the conversion of Series A-1 convertible preferred stock that may be acquired pursuant to the exercise of an outstanding Series A-1 convertible preferred stock warrant exercisable within 60 days of April 11, 2018, (iv) 570,678 shares of common stock issuable upon the conversion of Series A-2 convertible preferred stock that may be acquired pursuant to the exercise of outstanding Series A-2 convertible preferred stock warrants exercisable within 60 days of April 11, 2018, (v) 901,917 shares of common stock that may be acquired pursuant to the exercise of stock options within 60 days of April 11, 2018, (vi) 222,148 shares of common stock issuable upon conversion of Series B convertible preferred stock and (vii) 1,630 shares of common stock issuable upon conversion of Series C convertible preferred stock.
- (9) Consists of (i) 94,718 shares of common stock, (ii) 1,630 shares of common stock issuable upon conversion of Series C convertible preferred stock, and (iii) 335,591 shares of common stock that may be acquired pursuant to the exercise of stock options within 60 days of April 11, 2018.
- (10) Consists of 3,261 shares of common stock issuable upon conversion of Series C convertible preferred stock.
- (11) Consists of (i) 79,096 shares of common stock held by Backes & Burow 2012 Revocable Trust, (ii) 33,898 shares of common stock held by Ms. Burow's spouse and 10,805 shares of common stock that may be acquired pursuant to the exercise of stock options held by Ms. Burow's spouse within 60 days of April 11, 2018.
- (12) Consists of 84,745 shares of common stock.
- (13) Consists of 84,745 shares of common stock that may be acquired pursuant to the exercise of stock options within 60 days of April 11, 2018.
- (14) Consists of the shares described in note 1 above. Mr. Nelsen is a managing director of GPLLC, which is the sole general partner of GPLP, which is the sole general partner of ARCH VIII and ARCH Overage, and as such may be deemed to beneficially own such shares. Mr. Nelsen disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein.

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- (15) Consists of 10,169 shares of common stock. Ms. Samuels is affiliated with Venrock. Ms. Samuels does not have voting or dispositive control over the shares held by the entities affiliated with Venrock referenced in footnote 3 above.
- (16) Consists of (i) the shares described in notes 7 through 15 above, (ii) 667,388 shares of common stock, (iii) 74,048 shares of common stock issuable upon conversion of Series B convertible preferred stock, (iv) 1,630 shares of common stock issuable upon conversion of Series C convertible preferred stock and (v) 228,812 shares of common stock that may be acquired pursuant to the exercise of stock options within 60 days of April 11, 2018.

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 consummation 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

Immediately prior to the consummation of this offering, we will file our amended and restated certificate of incorporation that authorizes 300,000,000 shares of common stock, \$0.0001 par value per share, and 10,000,000 shares of preferred stock, \$0.0001 par value per share. As of December 31, 2017, after giving effect to the issuance of 3,913,425 shares of Series C convertible preferred stock in March and April 2018, there were outstanding:

- 36,903,538 shares of our common stock, on an as-converted basis, held by approximately 90 stockholders of record; and
- 4,365,694 shares of our common stock issuable upon exercise of outstanding stock options.

In connection with this offering, we consummated a 1-for-2.95 reverse stock split of our outstanding capital stock.

Common Stock

Voting Rights

Each holder of our 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, such as 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, if any, 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 and 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, subscription or other 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 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.

Convertible Preferred Stock

Immediately prior to the consummation of this offering, all outstanding shares of our convertible preferred stock will be converted into shares of our common stock. See Note 11 and Note 17 to our audited financial statements included elsewhere in this prospectus for a description of our currently outstanding convertible preferred stock. Immediately prior to the consummation of this offering, our amended and restated certificate of incorporation will be amended and restated to delete all references to such shares of 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 10,000,000 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.

Registration Rights

Under our amended and restated investors' rights agreement, following the consummation of this offering, the holders of approximately 32.1 million shares of common stock, or their transferees, have the right to require us to register their shares under the Securities Act so that those shares may be publicly resold, and the holders of approximately 32.1 million shares of common stock, or their transferees, have the right to include their shares in any registration statement we file, in each case as described below.

Demand Registration Rights

After the consummation of this offering, the holders of approximately 32.1 million shares of our common stock (on an as-converted basis), or their transferees, 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, the holders of at least 50% of these shares can, on not more than two occasions, request that we register all or a portion of their shares if the aggregate price to the public of the shares offered is at least \$10.0 million (before deductions of underwriters' commissions and expenses). Additionally, we will not be required to effect a demand registration during the period beginning 60 days prior to the filing and ending 180 days following the effectiveness of a company-initiated registration statement relating to an initial public offering of our securities.

Piggyback Registration Rights

After the consummation of this offering, in the event that we determine to register any of our securities under the Securities Act (subject to certain exceptions), either for our own account or for the account of other security holders, the holders of approximately 32.1 million shares of our common stock (on an as-converted basis), or their transferees, will be entitled to certain “piggyback” registration rights allowing the holders to include their shares in such registration, subject to certain marketing and other limitations. As a result, whenever we propose to file a registration statement under the Securities Act, other than with respect to a registration related to employee benefit plans, the offer and sale of debt securities, or corporate reorganizations or certain other transactions, the holders of these shares are entitled to notice of the registration and have the right, subject to limitations that the underwriters may impose on the number of shares included in the registration, to include their shares in the registration. In an underwritten offering, the managing underwriter, if any, has the right, subject to specified conditions, to exclude or limit the number of shares such holders may include.

Form S-3 Registration Rights

After the consummation of this offering, the holders of approximately 32.1 million shares of our common stock (on an as-converted basis), or their transferees, will be entitled to certain Form S-3 registration rights. The holders of at least approximately 1.0 million of these shares can make a written request that we register their shares on Form S-3 if we are eligible to file a registration statement on Form S-3 and if the aggregate price to the public of the shares offered is at least \$10.0 million (before deductions of underwriters' commissions and expenses). These stockholders may make an unlimited number of requests for registration on Form S-3, but in no event shall we be required to file more than two registrations on Form S-3 in any given twelve-month period.

Expenses of Registration

We will pay the registration expenses of the holders of the shares registered pursuant to the demand, piggyback and Form S-3 registration rights described above, including the expenses in an amount not to exceed \$75,000 of one special counsel for the selling holders.

Expiration of Registration Rights

The demand, piggyback and Form S-3 registration rights described above will expire, with respect to any particular stockholder, upon the earlier of five years after the consummation of this offering or when that stockholder can sell all of its shares under Rule 144 of the Securities Act during any 90-day period (and without the requirement for the Company to be in compliance with the current public information required under Section c(1) of Rule 144 of the Securities Act).

Anti-Takeover Effects of Provisions of our Amended and Restated Certificate of Incorporation, our Amended and Restated Bylaws and Delaware Law

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 consummation 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 change control of us. 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 bylaws will provide that a special meeting of stockholders may be called at any time by our board of directors, or our President or Chief Executive Officer, 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 and our amended and restated bylaws 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. 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 “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 our amended and restated 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: 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. Although our amended and restated certificate of incorporation and amended and restated 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.

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.

Limitations of Liability and Indemnification Matters

For a discussion of liability and indemnification, see “Management—Limitation on Liability and Indemnification Matters.”

Listing

We have applied to have our common stock listed on The Nasdaq Global Select Market under the symbol “UBX.”

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare, Inc. The transfer agent and registrar's address is 480 Washington Boulevard, 29th Floor, Jersey City, New Jersey 07130.

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock. Future sales of our common stock, including shares issued upon the exercise of outstanding options or warrants, in the public market after this offering, or the perception that those sales may occur, could cause the prevailing market price for our common stock to fall 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 consummation 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 (to the extent permitted) 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 December 31, 2017 and assuming an initial public offering price of \$17.00 per share (the midpoint of the estimated price range set forth on the cover of this prospectus), upon the consummation of this offering and assuming (1) the conversion of all shares of our outstanding Series A-1, Series A-2, and Series B convertible preferred stock outstanding at December 31, 2017 and Series C convertible preferred stock issued in March and April 2018, (2) no exercise of the underwriters' option to purchase additional shares of common stock and (3) no exercise of any of our outstanding options or warrants, we will have outstanding an aggregate of approximately 41,903,538 shares of common stock. Of these shares, all of the shares of common stock to be sold in this offering (excluding any shares sold to our director or officers in the directed share program), and any shares sold upon exercise of the underwriters' option to purchase additional shares, 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. All remaining shares of common stock held by existing stockholders immediately prior to the consummation of this offering will be "restricted securities" as such term is defined in Rule 144. These restricted securities were issued and sold by us, or will be 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, 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 under the Securities Act, based on the number of shares of our common stock outstanding as of December 31, 2017 and assumptions (1)-(3) 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, subject (1) to any waivers by the underwriters and/or our board of directors under the respective lock-up agreements and (2) with respect to shares held by directors, executive officers and other affiliates, the volume limitations under Rule 144 under the Securities Act, are as follows:

Approximate Number of Shares
36,903,538 shares

First Date Available for Sale into Public Market
180 days after the date of this prospectus upon expiration of the lock-up agreements referred to below, subject in some cases to applicable volume limitations under Rule 144

Lock-Up Agreements

In connection with this offering, we, our directors, our executive officers and substantially all of our other stockholders and option holders have agreed, subject to certain exceptions, with the

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underwriters not to dispose of or hedge any shares of our common stock or securities convertible into or exchangeable for shares of common stock during the period from the date of the lock-up agreement continuing through the date 180 days after the date of this prospectus, except with the prior written consent of Goldman Sachs & Co. LLC, Morgan Stanley & Co. LLC, and Citigroup Global Markets Inc..

Prior to the consummation of the offering, certain of our employees, including our executive officers, and/or directors may enter into written trading plans that are intended to comply with Rule 10b5-1 under the Exchange Act. Sales under these trading plans would not be permitted until the expiration of the lock-up agreements relating to the offering described above.

Following the lock-up periods set forth in the agreements described above, and assuming that the representatives of the underwriters do not release any parties from these agreements, all of the shares of our common stock that are restricted securities or are held by our affiliates as of the date of this prospectus will be eligible for sale in the public market in compliance with Rule 144 under the Securities Act.

Rule 144

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, 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 three months 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 above, 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 above, 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 common shares then outstanding, which will equal approximately 419,035 shares of common stock immediately after this offering (calculated as of December 31, 2017 on the basis of the assumptions (1)-(3) described above); or
- the average weekly trading volume of our common stock on The Nasdaq Global Select Market 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 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 under the Securities Act 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) is entitled to rely on Rule 701 to resell such shares beginning 90 days after we become subject to the public company reporting requirements of the Exchange Act in reliance on Rule 144, but without compliance with the holding period requirements contained in Rule 144. Accordingly, subject to any applicable lock-up agreements, beginning 90 days after we become subject to the public company reporting requirements of the Exchange Act, under Rule 701 persons who are not our “affiliates,” as defined in Rule 144, may resell those shares without complying with the minimum holding period or public information requirements of Rule 144, and persons who are our “affiliates” may resell those shares without compliance with Rule 144’s minimum holding period requirements (subject to the terms of the lock-up agreement referred to above).

Registration Rights

After the consummation of this offering, the holders of approximately 32.1 million shares of our common stock, or their transferees, will, subject to the lock-up agreements referred to above, be entitled to certain rights with respect to the registration of the offer and sale of those shares under the Securities Act. For a description of these registration rights, see “Description of Capital Stock—Registration Rights.” If the offer and sale of these shares are registered, they will be freely tradable without restriction under the Securities Act.

Stock Plans

We intend to file with the SEC a registration statement under the Securities Act covering the shares of common stock that we may issue upon exercise of outstanding options reserved for issuance under our 2013 Equity Incentive Plan and our 2018 Equity Incentive Annual Plan. Such registration statement is expected to be filed and become effective as soon as practicable after the consummation 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;
- “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; and
- persons subject to special tax accounting rules as a result of any item of gross income with respect to our common stock being taken into account in an applicable financial statement.

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 (1) 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 (2) 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 entitled “Dividend Policy,” we do not anticipate paying any cash dividends 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 discussions below regarding effectively connected income and FATCA, 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 graduated 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 and FATCA, 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 graduated 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 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 (1) the foreign financial institution undertakes certain diligence and reporting obligations, (2) 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 (3) 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 (1) 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, and, beginning on January 1, 2019, will apply to payments of gross proceeds from the sale or other disposition of such stock.

Prospective investors should consult their tax advisors regarding the potential application of withholding under FATCA to their investment in our common stock.

UNDERWRITING

We and the underwriters named below have entered into an underwriting agreement with respect to the shares being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares indicated in the following table. Goldman Sachs & Co. LLC, Morgan Stanley & Co. LLC and Citigroup Global Markets Inc. are the representatives of the underwriters.

<u>Underwriters</u>	<u>Number of Shares</u>
Goldman Sachs & Co. LLC	
Morgan Stanley & Co. LLC	
Citigroup Global Markets Inc.	
Mizuho Securities USA LLC	
Total.	<u>5,000,000</u>

The underwriters will be committed to take and pay for all of the shares being offered, if any are taken, other than the shares covered by the option described below unless and until this option is exercised.

The underwriters will have an option to buy up to an additional 750,000 shares from us to cover sales by the underwriters of a greater number of shares than the total number set forth in the table above. They may exercise that option for 30 days. If any shares are purchased pursuant to this option, the underwriters will severally purchase shares in approximately the same proportion as set forth in the table above.

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by us. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase 750,000 additional shares.

<u>Paid by the Company</u>	<u>No Exercise</u>	<u>Full Exercise</u>
<u>Per Share</u>	\$	\$
Total	\$	\$

Shares sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of this prospectus. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to \$ per share from the initial public offering price. After the initial offering of the shares, the representatives may change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

We, our officers, directors, and holders of substantially all of our common stock and securities convertible into or exchangeable for our common stock have agreed or will agree with the underwriters, subject to certain exceptions, not to dispose of or hedge any of their common stock or 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 the representatives. This agreement does not apply to any existing employee benefit plans. See the section titled "Shares Eligible for Future Sale" for a discussion of certain transfer restrictions.

In addition, notwithstanding the lock-up agreements applicable to our officers, directors, and holders of substantially all of our common stock and securities convertible into or exchangeable for our common stock, the above restrictions do not apply to transfers of securities: (a) as a bona fide gift or

gifts; (b) to any trust (or similar estate planning vehicle) for the direct or indirect benefit of the applicable executive officer, director or shareholder or the immediate family of such person; (c) to any corporation, partnership, limited liability company or other entity all of the beneficial ownership interests of which are held by the applicable executive officer, director or shareholder or the immediate family of such person; (d) by will, other testamentary document or intestate succession to the legal representative, heir, beneficiary or a member of the immediate family of the applicable executive officer, director or shareholder; (e) to partners, members or stockholders of the applicable executive officer, director or shareholder; or (f) transfer shares of our common stock to the applicable executive officer, director or shareholder's affiliates or to any investment fund or other entity controlled or managed by the applicable executive officer, director or shareholder; provided that in the case of any transfer or distribution pursuant to clauses (a)-(f) above, each transferee, donee or distributee shall agree to be bound by the lock-up restrictions described above; and provided, further, that in the case of any transfer, disposition or distribution pursuant to clauses (a)-(f), no filing by any party under the Exchange Act, or other public announcement shall be required or shall be made voluntarily in connection with such transfer or distribution (other than a filing on a Form 5 after the expiration of the 180-day restricted period (the "Restricted Period") or the filing of a required Schedule 13F or 13G) and any such transfer or distribution shall not involve a disposition for value.

Furthermore, the applicable executive officer, director or shareholder may, without the prior written consent of the Representatives: (i) exercise an option to purchase shares of our common stock granted under any stock incentive plan or stock purchase plan described in this registration statement, provided that the underlying shares of common stock shall continue to be subject to the restrictions on transfer set forth in the lock-up agreements; (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 Restricted Period, and provided, further, that no filing under the Exchange Act or other public announcement shall be required or shall be made voluntarily in connection therewith during the Restricted Period; (iii) transfer or dispose of shares of our common stock acquired in this offering or on the open market following this offering, provided that no filing under the Exchange Act or other public announcement shall be required or shall be made voluntarily in connection with such transfer or disposition during the Restricted Period (other than a required filing on a Schedule 13F or 13G); (iv) transfer, or surrender, to us shares of our common stock (A) pursuant to any contractual arrangement that provides us with an option to repurchase such shares of common stock in connection with the termination of the applicable executive officer, director or shareholder's employment or other service relationship with us, (B) to cover tax withholdings upon a vesting event of any equity award granted under any stock incentive plan or stock purchase plan described in this registration statement or (C) in connection with the "cashless" exercise by the applicable executive officer, director or shareholder of an option to purchase shares of our common stock that will expire during the Restricted Period and that was granted under any of our stock incentive plan or stock purchase plan described in this registration statement (the term "cashless" exercise meaning the surrender of a portion of the option shares to us to cover payment of the exercise price), provided that any filing under Section 16 of the Exchange Act with regard to (A), (B) or (C) shall clearly indicate in the footnotes thereto that the filing relates to the circumstances described in (A), (B) or (C) above, as the case may be, and no other public announcement shall be required or shall be made voluntarily in connection with such transfer or surrender; and (v) transfer or dispose shares of our common stock by operation of law pursuant to a qualified domestic order or in connection with a divorce settlement, provided that the recipient of such shares shall execute and deliver to the Representatives a lock-up letter in the same form as the lock-up agreement, provided, further that any filing under Section 16 of the Exchange Act shall clearly indicate in the footnotes thereto that the filing relates to the circumstances described in (v) above and no other public announcement shall be required or shall be made voluntarily in connection with such transfer or disposition.

Further, the lock-up agreements do not restrict any sale, disposal or transfer of shares of our common stock to a bona fide third party pursuant to a tender offer for our securities or any merger, consolidation or other business combination involving a change of control of us occurring after the settlement of this offering, that, in each case, has been approved by our board of directors; provided that all of shares of our common stock subject to the lock-up agreements that are not so transferred, sold, tendered or otherwise disposed of remain subject to the restrictions therein; and provided, further, that it shall be a condition of transfer, sale, tender or other disposition that if such tender offer or other transaction is not completed, any of shares of our common stock subject to the lock-up agreement shall remain subject to the restrictions described above.

In addition, the lockup restrictions described above do not apply to us with respect to certain customary transactions, including in connection with our issuance of up to 5% of our outstanding shares of common stock immediately following the closing of this offering in acquisitions or other similar strategic transactions.

Prior to the offering, there has been no public market for the shares. The initial public offering price will be negotiated among the representatives and us. Among the factors to be considered in determining the initial public offering price of the shares, in addition to prevailing market conditions, will be our historical performance, estimates of our business potential and earnings prospects, an assessment of our management and the consideration of the above factors in relation to market valuation of companies in related businesses.

We have applied to list our common stock on The Nasdaq Global Select Market under the symbol "UBX."

In connection with the offering, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering, and a short position represents the amount of such sales that have not been covered by subsequent purchases. A "covered short position" is a short position that is not greater than the amount of additional shares for which the underwriters' option described above may be exercised. The underwriters may cover any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to cover the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase additional shares pursuant to the option described above. "Naked" short sales are any short sales that create a short position greater than the amount of additional shares for which the option described above may be exercised. The underwriters must cover any such naked short position by purchasing shares in the open market. 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 after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it, because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of our stock, and together with the imposition of the penalty bid, may stabilize, maintain or

otherwise affect the market price of the common stock. As a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. The underwriters are not required to engage in these activities and may end any of these activities at any time. These transactions may be effected on The Nasdaq Global Select Market, in the over-the-counter market or otherwise.

Directed Share Program

At our request, the underwriters have reserved up to 5.0% of the shares of common stock offered hereby, at the initial public offering price, to offer to directors, officers, employees, business associates and related persons of Unity Biotechnology, Inc. Except for any shares acquired by our directors and officers, shares purchased pursuant to the directed share program will not be subject to lock-up agreements with the underwriters. The underwriters will receive the same underwriting discount on any shares purchased pursuant to this program as they will on any other shares sold to the public in this offering. The number of shares of common stock available for sale to the general public will be reduced to the extent these individuals purchase such reserved shares. Any reserved shares that are not so purchased will be offered by the underwriters to the general public on the same basis as the other shares offered by this prospectus.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), an offer to the public of our common stock may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of our common stock may be made at any time under the following exemptions under the Prospectus Directive:

- a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- b) to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the representatives for any such offer; or
- c) in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of shares of our common stock shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an “offer to the public” in relation to our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and our common stock to be offered so as to enable an investor to decide to purchase our common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression “Prospectus Directive” means Directive 2003/71/EC (as amended), including by Directive 2010/73/EU and includes any relevant implementing measure in the Relevant Member State.

This European Economic Area selling restriction is in addition to any other selling restrictions set out below.

United Kingdom

In the United Kingdom, this prospectus is only addressed to and directed as qualified investors who are (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the Order); or (ii) high net worth entities and other persons

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to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as “relevant persons”). Any investment or investment activity to which this prospectus relates is available only to relevant persons and will only be engaged with relevant persons. Any person who is not a relevant person should not act or rely on this prospectus or any of its contents.

Canada

The common stock may be sold in Canada 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 common stock must be made in accordance with an exemption form, 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 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.

Hong Kong

The common stock may not be offered or sold in Hong Kong by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the Laws of Hong Kong), or Companies (Winding Up and Miscellaneous Provisions) Ordinance, or which do not constitute an invitation to the public within the meaning of the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong), or Securities and Futures Ordinance, or (ii) to “professional investors” as defined in the Securities and Futures Ordinance and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance, and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares of common stock which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” in Hong Kong as defined in the Securities and Futures Ordinance and any rules made thereunder.

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 the common stock may not be circulated or

distributed, nor may the common stock 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 (as defined under Section 4A of the Securities and Futures Act, Chapter 289 of Singapore, or the SFA, under Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, 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, in each case subject to conditions set forth in the SFA.

Where the shares of common stock are subscribed or purchased under Section 275 of the SFA by a relevant person which is 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, the securities (as defined in Section 239(1) of the SFA) of that corporation shall not be transferable for 6 months after that corporation has acquired the common stock under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer in that corporation's securities pursuant to Section 275(1A) of the SFA, (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore, or Regulation 32.

Where the shares of common stock are subscribed or purchased under Section 275 of the SFA by a relevant person which is a trust (where the trustee is not an accredited investor (as defined in Section 4A of the SFA)) whose sole purpose is to hold investments and each beneficiary of the trust is an accredited investor, the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferable for 6 months after that trust has acquired the common stock under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer that is made on terms that such rights or interest are acquired at a consideration of not less than S\$200,000 (or its equivalent in a foreign currency) for each transaction (whether such amount is to be paid for in cash or by exchange of securities or other assets), (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32.

Japan

The common stock has not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended), or the FIEA. The common stock may not be offered or sold, directly or indirectly, in Japan or to or for the benefit of any resident of Japan (including any person resident in Japan or any corporation or other entity organized under the laws of Japan) or to others for reoffering or resale, directly or indirectly, in Japan or to or for the benefit of any resident of Japan, except pursuant to an exemption from the registration requirements of the FIEA and otherwise in compliance with any relevant laws and regulations of Japan.

We estimate that our share of the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately \$3,000,000. We will agree to reimburse the underwriters for expenses related to any applicable state securities filings and to the Financial Industry Regulatory Authority incurred by them in connection with this offering in an amount up to \$45,000.

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We will agree to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to the issuer and to persons and entities with relationships with the issuer, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively traded securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the issuer (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the issuer. The underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

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, 140 Scott Drive, Menlo Park, California. Davis Polk & Wardwell LLP, Menlo Park, California, is acting as counsel for the underwriters in connection with this offering.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements and related notes at December 31, 2016 and 2017, and for each of the two years in the period ended December 31, 2017, as set forth in their report. We have included our financial statements in this prospectus and elsewhere in the registration statement in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules filed therewith. For further information with respect to Unity Biotechnology, Inc. and the common stock offered hereby, reference is made to the registration statement and the exhibits and schedules filed therewith. Statements contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement. A copy of the registration statement and the exhibits and schedules filed therewith may be inspected without charge at the public reference room maintained by the SEC, located at 100 F Street N.E., Room 1580, Washington, D.C. 20549, and copies of all or any part of the registration statement may be obtained from such offices upon the payment of the fees prescribed by the SEC. Please call the SEC at 1-800-SEC-0330 for further information about the public reference room. The SEC also maintains a website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC. The address is www.sec.gov.

Upon consummation of this offering, we will become subject to the information and periodic reporting requirements of the Exchange Act and, in accordance therewith, will file periodic reports, proxy statements and other information with the SEC. Such periodic reports, proxy statements and other information will be available for inspection and copying at the public reference room and website of the SEC referred to above. We maintain a website at www.unitybiotechnology.com. Upon consummation of this offering, you may access our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The reference to our website address does not constitute incorporation by reference of the information contained on our website, and you should not consider the contents of our website in making an investment decision with respect to our common stock.

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UNITY BIOTECHNOLOGY, INC.

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Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of
Unity Biotechnology, Inc.

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Unity Biotechnology, Inc. (the Company) as of December 31, 2016 and 2017, and related statements of operations and comprehensive loss, statements of convertible preferred stock and stockholders' deficit and cash flows for the years then ended, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2016 and 2017, and the results of its operations and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with 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. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2017.

Redwood City, California

March 1, 2018,

except for Note 17, and the retroactive effect of the 1-for-2.95 reverse stock split as described in Note 2, as to which the date is April 20, 2018

UNITY BIOTECHNOLOGY, INC.

Balance Sheets
(in thousands, except share and per share amounts)

	December 31,		Pro forma Stockholders' Equity as of December 31, 2017 (Unaudited)
	2016	2017	
Assets			
Current assets:			
Cash and cash equivalents	\$ 89,286	\$ 7,298	
Contribution receivable	—	1,382	
Short-term marketable securities	—	79,212	
Prepaid expenses and other current assets	4,123	988	
Total current assets	93,409	88,880	
Property and equipment, net	2,248	6,958	
Long-term marketable securities	—	5,118	
Restricted cash	450	550	
Other long-term assets	541	518	
Total assets	<u>\$ 96,648</u>	<u>\$102,024</u>	
Liabilities, Convertible Preferred Stock, and Stockholders' (Deficit) Equity			
Current liabilities:			
Accounts payable	\$ 964	\$ 2,378	
Accrued compensation	574	2,181	
Accrued and other current liabilities	2,153	3,338	
Total current liabilities	3,691	7,897	
Deferred rent, net of current portion	3,404	3,166	
Other non-current liabilities	—	118	
Total liabilities	<u>7,095</u>	<u>11,181</u>	
Commitments and contingencies (Note 8)			
Convertible preferred stock, \$0.0001 par value; 79,739,149 and 91,739,149 shares authorized as of December 31, 2016 and 2017, respectively; 24,620,615 and 28,159,724 shares issued and outstanding as of December 31, 2016 and 2017, respectively; aggregate liquidation preference of \$147,915 and \$190,825 as of December 31, 2016 and 2017, respectively; no shares issued and outstanding, pro forma (unaudited)	131,089	173,956	\$ —
Stockholders' (deficit) equity:			
Common stock, \$0.0001 par value; 110,000,000 and 122,000,000 shares authorized as of December 31, 2016 and 2017, respectively; 4,303,538 and 4,830,389 shares issued and outstanding as of December 31, 2016 and 2017, respectively; 32,990,113 shares issued and outstanding as of December 31, 2017, pro forma (unaudited)	1	1	3
Additional paid-in capital	889	4,072	178,026
Related party promissory notes for purchase of common stock	(202)	(202)	(202)
Accumulated other comprehensive loss	—	(104)	(104)
Accumulated deficit	(42,224)	(86,880)	(86,880)
Total stockholders' (deficit) equity	<u>(41,536)</u>	<u>(83,113)</u>	<u>\$ 90,843</u>
Total liabilities, convertible preferred stock, and stockholders' (deficit) equity	<u>\$ 96,648</u>	<u>\$102,024</u>	

See accompanying notes to the financial statements.

UNITY BIOTECHNOLOGY, INC.

Statements of Operations and Comprehensive Loss
(in thousands, except share and per share amounts)

	Year ended December 31,	
	2016	2017
Contribution revenue	\$ —	\$ 1,382
Operating expenses:		
Research and development	13,707	37,373
General and administrative	5,137	9,617
Total operating expenses	18,844	46,990
Loss from operations	\$ (18,844)	\$ (45,608)
Loss on extinguishment of promissory notes	(9,377)	—
Interest income (expense), net	(2,183)	1,055
Other expense, net	—	(103)
Net loss	\$ (30,404)	\$ (44,656)
Other comprehensive loss		
Unrealized loss on marketable securities, net of tax	—	(104)
Comprehensive loss	\$ (30,404)	\$ (44,760)
Net loss per share, basic and diluted	\$ (11.42)	\$ (13.97)
Weighted average number of shares used in computing net loss per share, basic and diluted	2,662,841	3,197,516
Pro forma net loss per share, basic and diluted (unaudited)		\$ (1.49)
Weighted average number of shares used in computing pro forma net loss per share, basic and diluted (unaudited)		30,039,385

See accompanying notes to the financial statements.

UNITY BIOTECHNOLOGY, INC.

Statements of Convertible Preferred Stock and Stockholders' Deficit
 (in thousands, except share amounts)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Related Party Promissory Notes for Purchase of Common Stock	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount					
Balances at									
December 31, 2015	8,713,925	\$ 7,579	2,054,204	\$ 1	\$ 123	\$ (49)	\$ —	\$ (11,820)	\$ (11,745)
Issuance of Series A-2 convertible preferred stock at \$0.876 per share for cash, net of issuance costs of \$1	4,671,430	4,092	—	—	—	—	—	—	—
Issuance of Series B convertible preferred stock at \$12.125 per share for cash, net of issuance costs of \$214	11,235,260	119,418	—	—	—	—	—	—	—
Issuance of common stock upon exercise of stock options, net of amount related to early exercised options of \$408	—	—	1,436,902	—	38	—	—	—	38
Vesting of early exercised options	—	—	—	—	58	—	—	—	58
Issuance of restricted stock	—	—	76,271	—	—	—	—	—	—
Common stock granted to third parties	—	—	736,161	—	446	—	—	—	446
Stock-based compensation	—	—	—	—	224	—	—	—	224
Receipt of promissory note from related party for purchase of common stock	—	—	—	—	—	(153)	—	—	(153)
Net loss	—	—	—	—	—	—	—	(30,404)	(30,404)
Balances at									
December 31, 2016	24,620,615	\$131,089	4,303,538	\$ 1	\$ 889	\$ (202)	\$ —	\$ (42,224)	\$ (41,536)
Issuance of Series B convertible preferred stock at \$12.125 per share for cash, net of issuance costs of \$43	3,539,109	42,867	—	—	—	—	—	—	—
Issuance of common stock upon exercise of stock options, net of amount related to early exercised options of \$5	—	—	43,727	—	8	—	—	—	8
Vesting of early exercised options	—	—	—	—	97	—	—	—	97
Issuance of restricted stock	—	—	625,931	—	—	—	—	—	—
Common stock granted to third party	—	—	12,711	—	44	—	—	—	44
Stock-based compensation	—	—	—	—	3,034	—	—	—	3,034
Unrealized loss on marketable securities, net of tax	—	—	—	—	—	—	(104)	—	(104)
Repurchase of early exercised shares of common stock	—	—	(155,518)	—	—	—	—	—	—
Net loss	—	—	—	—	—	—	—	(44,656)	(44,656)
Balances at									
December 31, 2017	28,159,724	\$173,956	4,830,389	\$ 1	\$ 4,072	\$ (202)	\$ (104)	\$ (86,880)	\$ (83,113)

See accompanying notes to the financial statements.

UNITY BIOTECHNOLOGY, INC.
**Statements of Cash Flows
(in thousands)**

	Year Ended December 31,	
	2016	2017
Operating activities		
Net loss	\$ (30,404)	\$ (44,656)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	153	1,304
Loss on sale of equipment	—	15
Amortization of premium and discounts on marketable securities	—	182
Stock-based compensation	224	3,034
Loss on extinguishment of promissory notes	9,377	—
Non-cash interest expense	2,223	—
Common stock granted to third party	447	44
Accretion of tenant improvement allowance	(403)	(605)
Changes in operating assets and liabilities:		
Contribution receivable	—	(1,382)
Prepaid expenses and other current assets	(229)	(746)
Other long-term assets	(41)	23
Accounts payable	198	1,198
Accrued compensation	504	1,607
Accrued liabilities and other current liabilities	1,046	1,258
Deferred rent, net of current portion	27	366
Other non-current liabilities	480	—
Net cash used in operating activities	<u>(16,398)</u>	<u>(38,358)</u>
Investing activities		
Purchase of marketable securities	—	(134,465)
Maturities of marketable securities	—	49,849
Purchase of cost method investment	(500)	—
Purchase of property and equipment	(2,244)	(1,689)
Net cash used in investing activities	<u>(2,744)</u>	<u>(86,305)</u>
Financing activities		
Proceeds from issuance of convertible promissory notes payable	16,887	—
Proceeds from issuance of convertible preferred stock, net of issuance costs	90,956	42,867
Proceeds from issuance of common stock upon exercise of stock options, net of repurchases	95	(37)
Payments made on capital lease obligations	—	(55)
Net cash provided by financing activities	<u>107,938</u>	<u>42,775</u>
Net increase (decrease) in cash, cash equivalents and restricted cash	88,796	(81,888)
Cash, cash equivalents and restricted cash at beginning of year	940	89,736
Cash, cash equivalents and restricted cash at end of year	<u>\$ 89,736</u>	<u>\$ 7,848</u>
Supplemental Disclosures of Non-Cash Investing and Financing Information		
Conversion and settlement of convertible notes and accrued interest into convertible preferred stock	\$ 15,667	\$ —
Property and equipment included in accounts payable	\$ 98	\$ 314
Property and equipment acquired under capital leases	\$ —	\$ 243
Lessor funded lease incentives included in property and equipment	\$ —	\$ 3,881
Receipt of promissory note from related party for purchase of common stock	\$ 153	\$ —

See accompanying notes to the financial statements.

**UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS**

1. Organization and Liquidity Risks

Description of Business

Unity Biotechnology, Inc. (the "Company") is a biotechnology company engaged in the research and development of therapeutics to extend the human healthspan. The Company devotes substantially all of its time and efforts to performing research and development, raising capital and recruiting personnel. The Company is located in Brisbane, California and was incorporated in the state of Delaware in March 2009 under the name Forge, Inc. The Company changed its name to Unity Biotechnology, Inc. in January 2015.

Need for Additional Capital

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. Since inception, the Company has incurred net losses and negative cash flows from operations. During the year ended December 31, 2017, the Company incurred a net loss of \$44.7 million and used \$38.4 million of cash in operations. At December 31, 2017, the Company had an accumulated deficit of \$86.9 million and does not expect positive cash flows from operations in the foreseeable future. The Company has historically financed its operations primarily through the issuance and sale of convertible preferred stock and convertible promissory notes. To date, none of the Company's drug candidates have been approved for sale and therefore the Company has not generated any revenue from contracts with customers. The Company has evaluated and concluded there are no conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern for a period of one year following the date that these financial statements are issued. Management expects operating losses to continue for the foreseeable future. As a result, the Company will need to raise additional capital. If sufficient funds on acceptable terms are not available when needed, the Company could be required to significantly reduce its operating expenses and delay, reduce the scope of, or eliminate one or more of its development programs. Failure to manage discretionary spending or raise additional financing, as needed, may adversely impact the Company's ability to achieve its intended business objectives.

2. Summary of Significant Accounting Policies

Basis of Presentation

These financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP").

Reverse Stock Split

On April 19, 2018, the Company's board of directors approved an amendment to the Company's amended and restated certificate of incorporation to effect a 1-for-2.95 reverse split ("Reverse Split") of shares of the Company's common and convertible preferred stock, which was effected on April 20, 2018. The par value and authorized shares of common stock and convertible preferred stock were not adjusted as a result of the Reverse Split. All of the share and per share information included in the accompanying financial statements has been adjusted to reflect the Reverse Split.

**UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS**

Unaudited Pro Forma Information

Immediately prior to the completion of this offering, all outstanding shares of convertible preferred stock will convert into common stock. Unaudited pro forma balance sheet information as of December 31, 2017 assumes the conversion of all outstanding convertible preferred stock into shares of common stock. The shares of common stock issuable and the proceeds expected to be received in the initial public offering ("IPO") are excluded from such pro forma financial information. Pro forma basic and diluted net loss per share has been computed to give effect to the conversion of all outstanding convertible preferred stock into shares of common stock. The unaudited pro forma net loss per share for the year ended December 31, 2017 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 convertible

UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS

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. Pro forma net loss per share does not include the shares expected to be sold and related proceeds to be received from the IPO.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. The Company bases its estimates on historical experience and market-specific or other relevant assumptions that it believes are reasonable under the circumstances. The amounts of assets and liabilities reported in the Company's balance sheets and the amount of expenses and income reported for each of the periods presented are affected by estimates and assumptions, which are used for, but are not limited to, determining the fair value of assets and liabilities, common stock valuation, and stock-based compensation. Actual results could differ from such estimates or assumptions.

Segments

The Company has one operating segment. The Company's chief operating decision maker, its Chief Executive Officer, manages the Company's operations on a consolidated basis for the purposes of allocating resources.

Cash, Cash Equivalents and Restricted Cash

The Company considers all highly liquid investments with original maturities of 90 days or less from the date of purchase to be cash equivalents. Cash equivalents primarily include money market funds that invest in U.S. Treasury obligations which are stated at fair value.

The Company has issued a letter of credit under a lease agreement which has been collateralized. This cash is classified as noncurrent restricted cash on the balance sheet based on the term of the underlying lease.

The following table provides a reconciliation of cash, cash equivalents, and restricted cash reported within the balance sheets that sum to the total of the same amounts shown in the statements of cash flows.

	<u>December 31,</u>	
	<u>2016</u>	<u>2017</u>
	(in thousands)	
Cash and cash equivalents	\$89,286	\$7,298
Restricted cash	450	550
Total cash, cash equivalents, and restricted cash	<u>\$89,736</u>	<u>\$7,848</u>

Marketable Securities

The Company generally invests its excess cash in investment grade, short to intermediate-term, fixed income securities. Such investments are considered available-for-sale, and reported at fair value with unrealized gains and losses included as a component of stockholders' deficit. Marketable

UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS

securities with original maturities of greater than 90 days from the date of purchase but less than one year from the balance sheet date are classified as short-term, while marketable securities with maturities in one year or beyond one year from the balance sheet date are classified as long-term. The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity, which is included in interest income on the statements of operations and comprehensive loss. Realized gains and losses and declines in value judged to be other-than-temporary, if any, on marketable securities are included in interest income (expense), net. The cost of securities sold is determined using the specific identification method.

The Company periodically evaluates whether declines in fair values of its marketable securities below their book value are other-than-temporary. This evaluation consists of several qualitative and quantitative factors regarding the severity and duration of the unrealized loss as well as the Company's ability and intent to hold the marketable security until a forecasted recovery occurs. Additionally, the Company assesses whether it has plans to sell the security or it is more likely than not it will be required to sell any marketable securities before recovery of its amortized cost basis. Factors considered include quoted market prices, recent financial results and operating trends, implied values from any recent transactions or offers of investee securities, credit quality of debt instrument issuers, other publicly available information that may affect the value of the marketable security, duration and severity of the decline in value, and management's strategy and intentions for holding the marketable security. To date, the Company has not recorded any impairment charges on its marketable securities related to other-than-temporary declines in market value.

Fair Value of Financial Instruments

The Company's financial instruments during the periods presented consist of cash and cash equivalents, restricted cash, contribution receivable, marketable securities, prepaid expenses and other current assets, accounts payable, accrued compensation, accrued and other current liabilities. Fair value estimates of these instruments are made at a specific point in time, based on relevant market information. These estimates may be subjective in nature and involve uncertainties and matters of significant judgment.

The Company elected the fair value option to account for certain convertible promissory notes that were issued and settled during the year ended December 31, 2016.

Concentrations of Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of cash, cash equivalents, restricted cash, marketable securities and contribution receivable. Substantially all of the Company's cash and cash equivalents and restricted cash is deposited in accounts with financial institutions that management believes are of high credit quality. Such deposits have and will continue to exceed federally insured limits. The Company maintains its cash with accredited financial institutions and accordingly, such funds are subject to minimal credit risk. The Company has not experienced any losses on its cash deposits. The contribution receivable is unsecured and is concentrated with one third-party organization, and accordingly the Company may be exposed to credit risk. To date, the Company has not experienced any loss related to its contributions receivable.

UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS

The Company's investment policy limits investments to certain types of securities issued by the U.S. government, its agencies and institutions with investment-grade credit ratings and places restrictions on maturities and concentration by type and issuer. The Company is exposed to credit risk in the event of a default by the financial institutions holding its cash, cash equivalents, restricted cash and marketable securities and issuers of marketable securities to the extent recorded on the balance sheets. As of December 31, 2017, the Company had no off-balance sheet concentrations of credit risk.

The Company depends on third-party suppliers for key raw materials used in its manufacturing processes and is subject to certain risks related to the loss of these third-party suppliers or their inability to supply the Company with adequate raw materials.

Contribution Revenue and Receivables

The Company recognizes contribution revenue related to the receipt of cash from third-party resource providers not considered to be customers and where the transfer of assets is not an exchange transaction or financing of research and development. Contribution revenue and related receivables are recognized for conditional contributions as the conditions related to the contribution are relieved.

Research and Development Expenses

Costs related to research, design and development of drug candidates are charged to research and development expense as incurred. Research and development costs include, but are not limited to, payroll and personnel expenses for personnel contributing to research and development activities, laboratory supplies, outside services, licenses acquired to be used in research and development and allocated overhead, including rent, equipment, depreciation and utilities. Payments made prior to the receipt of goods or services to be used in research and development are deferred and recognized as expense in the period in which the related goods are received or services are rendered.

The Company has entered and may continue to enter into license agreements to access and utilize certain technology. In each case, the Company evaluates if the license agreement results in the acquisition of an asset or a business. To date none of the Company's license agreements have been considered to be the acquisition of a business. For asset acquisitions, the upfront payments to acquire such licenses, as well as any future milestone payments made before product approval, are immediately recognized as research and development expense when due, provided there is no alternative future use of the rights in other research and development projects. These license agreements may also include contingent consideration in the form of cash and additional issuances of the Company's common stock. The Company assesses whether such contingent consideration meets the definition of a derivative. To date, the Company has determined that such contingent consideration are not derivatives. The Company continuously reassesses this determination until such time that the contingency is met or expires.

Property and Equipment, Net

Property and equipment are stated at cost, less accumulated depreciation. Depreciation is calculated using the straight-line method over the estimated useful lives of the respective assets, generally three years. Leasehold improvements are amortized on a straight-line basis over the shorter of their estimated useful lives or the term of the lease. Depreciation and amortization begins at the time the asset is placed in service. Maintenance and repairs are charged to expense as incurred and costs of improvement are capitalized.

UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS

Impairment of Long-Lived Assets

The Company evaluates long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be fully recoverable. If indicators of impairment exist and the undiscounted future cash flows that the assets are expected to generate are less than the carrying value of the assets, the Company reduces the carrying amount of the assets through an impairment charge, to their estimated fair values based on a discounted cash flow approach or, when available and appropriate, to comparable market values. No impairment losses have been recorded for the periods presented.

Cost Method Investment

The Company holds an equity interest in a privately held clinical-stage biopharmaceutical company. For this cost method investment, if an impairment has occurred, the carrying value of the cost method investment is written down to the current fair value, with a corresponding charge to the statement of operations. The Company bases its review on a number of factors including, but not limited to, the severity and duration of the decline in fair value of the cost method investment as well as the cause of the decline, the Company's ability and intent to hold the security for a sufficient period of time to allow for a recovery in value, and the financial condition and near-term prospects of the privately held company, taking into consideration the economic prospects of its industry and geographical location. No impairment was identified during the years ended December 31, 2016 and 2017.

Leases

The Company leases office space and laboratory facilities under non-cancelable operating lease agreements and recognizes related rent expense on a straight-line basis over the term of the lease. Incentives granted under the Company's facilities lease, including allowances to fund leasehold improvements and rent holidays, and are recognized as reductions to rental expense on a straight-line basis over the term of the lease. Lessor funded leasehold improvement incentives not yet received are recorded in prepaid expense and other current assets on the balance sheet. The Company does not assume renewals in its determination of the lease term unless they are deemed to be reasonably assured at the inception of the lease and begins recognizing rent expense on the date that it obtains the legal right to use and control the leased space. Deferred rent consists of the difference between cash payments and the rent expense recognized.

The Company entered into capital lease agreements for certain equipment with a lease term of three years. The current portion of capital lease obligations is included in accrued and other liabilities and the noncurrent capital lease obligations is included in other noncurrent liabilities in the balance sheet.

Convertible Preferred Stock

The Company records all shares of convertible preferred stock at their respective issuance price less issuance costs on the dates of issuance. Upon the occurrence of certain change in control events that are outside the Company's control, including liquidation, sale or transfer of the Company, holders of the convertible preferred stock can cause redemption for cash. Therefore, convertible preferred stock is classified outside of stockholders' deficit on the balance sheet as events triggering the liquidation preferences are not solely within the Company's control. The carrying values of the convertible preferred stock are adjusted to their liquidation preferences when and if it becomes probable that such an event will occur.

UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS

Variable Interest Entities

The Company reviews agreements it enters into with third-party entities, pursuant to which the Company may have a variable interest in the entity, in order to determine if the entity is a variable interest entity ("VIE"). If the entity is a VIE, the Company assesses whether or not it is the primary beneficiary of that entity. In determining whether the Company is the primary beneficiary of an entity, the Company applies a qualitative approach that determines whether it has both (i) the power to direct the economically significant activities of the entity and (ii) the obligation to absorb losses of, or the right to receive benefits from, the entity that could potentially be significant to that entity. If the Company determines it is the primary beneficiary of a VIE, it consolidates the VIE into the Company's financial statements. The Company's determination about whether it should consolidate such VIEs is made continuously as changes to existing relationships or future transactions may result in a consolidation or deconsolidation event.

Stock-Based Compensation

The Company measures employee and director stock-based compensation expense for all stock-based awards based on their grant date fair value. For stock-based awards with service conditions only, stock-based compensation expense is recognized over the requisite service period using the straight-line method. For awards with performance conditions, the Company evaluates the probability of achieving performance condition at each reporting date. The Company begins to recognize stock-based compensation expense using an accelerated attribution method when it is deemed probable that the performance condition will be met. Forfeitures are recognized as they occur.

The Company uses the Black-Scholes option-pricing model to estimate the fair value of stock option awards that do not contain market conditions. The Black-Scholes option-pricing model requires assumptions to be made related to the expected term of an award, expected dividends, expected volatility and risk-free rate. The Company uses the Monte Carlo simulation models to estimate the fair value of stock option awards that contain market conditions. The Monte Carlo simulation models require the use of subjective and complex assumptions which determine the fair value of such awards including price volatility of the underlying stock and derived service periods.

The Company recognizes stock-based compensation expense for stock options granted to non-employees based on the estimated fair value of the award as it is more readily measurable than the fair value of the services received. The fair value of stock options granted to non-employees is estimated at grant date and re-measured at each reporting period using the Black-Scholes option-pricing model until the awards vest and the resulting change in value, if any, is recognized in the statements of operations.

Income Taxes

The Company uses the asset and liability method of accounting for income taxes, in which deferred tax assets and liabilities are recognized for future tax consequences attributable to the differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using the enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be reversed. The effect on deferred tax assets and liabilities of a change in tax rates is recognized as income in the period that includes the enactment date. A valuation allowance is established if it is more likely than not that all or a portion of the deferred tax asset will not be realized.

UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS

The Company's tax positions are subject to income tax audits. The Company recognizes the tax benefit of an uncertain tax position only if it is more likely than not that the position is sustainable upon examination by the taxing authority, based on the technical merits. The tax benefit recognized is measured as the largest amount of benefit which is more likely than not to be realized upon settlement with the taxing authority. The Company recognizes interest accrued and penalties related to unrecognized tax benefits in its tax provision. The Company evaluates uncertain tax positions on a regular basis. The evaluations are based on a number of factors, including changes in facts and circumstances, changes in tax law, correspondence with tax authorities during the course of the audit, and effective settlement of audit issues. The provision for income taxes includes the effects of any accruals that the Company believes are appropriate, as well as the related net interest and penalties.

On December 22, 2017, the Securities and Exchange Commission ("SEC") staff issued Staff Accounting Bulletin No. 118 ("SAB 118") to address the accounting implications of the U.S. federal tax reform enacted on December 22, 2017. SAB 118 allows a company to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. See Note 16.

Net Loss per Common Share

Basic net loss per common share is computed by dividing the net loss by the weighted average number of common shares outstanding during the period, without consideration of common stock equivalents. Diluted net loss per common share is computed by dividing the net loss by the sum of the weighted average number of common shares outstanding during the period plus the potential dilutive effects of common stock equivalents outstanding during the period calculated in accordance with the treasury stock method. Diluted net loss per share attributable to common stockholders is the same as basic net loss per share attributable to common stockholders since the effect of potentially dilutive common stock equivalents is anti-dilutive.

Comprehensive Loss

Comprehensive loss includes net loss and certain changes in stockholders' deficit that are excluded from net loss, primarily unrealized losses on the Company's marketable securities.

Recently Issued Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09 ("ASU 2014-09"), *Revenue from Contracts with Customers* (Topic 606), and further updated through ASU 2016-12 ("ASU 2016-12"), which amends the existing accounting standards for revenue recognition. For public business entities, this standard is effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2018, and interim periods within annual periods beginning after December 15, 2019. Early adoption is permitted. Under Topic 606, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of Topic 606, the entity performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. Topic 606 also impacts certain other areas, such as the accounting for costs to

UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS

obtain or fulfill a contract. The standard also requires disclosure of the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. Effective January 1, 2017, the Company adopted Accounting Standards Codification, or ASC, Topic 606, *Revenue from Contracts with Customers* (Topic 606), using the full retrospective transition method. The adoption did not have any impact on the Company's financial statements as the Company has never had any revenue from contracts with customers.

In January 2017, the FASB issued ASU No. 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business*. This ASU clarifies the definition of a business when evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The guidance is effective for public business entities for fiscal years beginning after December 15, 2017, and interim periods within those years. For all other entities, it is effective for fiscal years beginning after December 15, 2018, and interim periods within fiscal years beginning after December 15, 2019. Early adoption is permitted. The Company is currently evaluating the effect that this guidance will have on its financial statements.

In February 2016, the FASB issued ASU No. 2016-02 ("ASU 2016-02"), *Leases (Topic 842)*, which supersedes the guidance in former ASC 840, *Leases*. The new 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 will be accounted for similar to existing guidance for operating leases today. For public entities, this standard is effective for annual reporting periods beginning after December 15, 2018, including interim periods within that reporting period. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2019, and interim periods within annual periods beginning after December 15, 2020. Early adoption is permitted. The ASU is expected to impact the Company's financial statements as the Company has certain operating lease arrangements for which the Company is the lessee. Management is currently evaluating the impact the adoption of ASU 2016-02 will have on the Company's financial position and results of operations. Management expects that the adoption of this standard will result in the recognition of an asset for the right to use the leased facility on the Company's balance sheet, as well as the recognition of a liability for the lease payments remaining on the lease. While the Company is currently evaluating the impact of the adoption of this standard on its financial statements, the Company anticipates the recognition of additional assets and corresponding liabilities on its balance sheet related to leases.

In May 2017, the FASB issued ASU 2017-09, *Compensation—Stock Compensation (Topic 718): Scope of Modification Accounting*, which clarifies when to account for a change to the terms or conditions of a share-based payment award as a modification. Under the new guidance, modification accounting is required only if the fair value, the vesting conditions, or the classification of the award (as equity or liability) changes as a result of the change in terms or conditions. For public entities, this standard is effective for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. For all other entities, it is effective for fiscal years beginning after December 15, 2017, and interim periods within fiscal years beginning after December 15, 2018, including interim periods within that reporting period. Early adoption is permitted. The Company is currently evaluating the impact of adopting this standard on the financial statements and disclosures, but does not expect it to have a significant impact.

UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS

In January 2016, the FASB issued ASU No. 2016-1, *Financial Instruments Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities*. This guidance makes amendments to the classification and measurement of financial instruments and revises the accounting related to: (1) the classification and measurement of investments in equity securities (except for investments accounted for under the equity method of accounting); and (2) the presentation of certain fair value changes for financial liabilities measured at fair value. In addition, the update also amends certain disclosure requirements associated with the fair value of financial instruments. The guidance is effective for public business entities in 2018. For all other calendar-year entities, it is effective for annual periods beginning in 2019 and interim periods beginning in 2020. Early adoptions of certain amendments within the update are permitted. The Company is currently evaluating the impact that the adoption of this guidance will have on its financial statements and related disclosures, including on the Company's cost method investment.

In August 2016, the FASB issued ASU No. 2016-15, *Statement of Cash Flows (Topic 230: Classification of Certain Cash Receipts and Cash Payments)*. This guidance addresses specific cash flow issues with the objective of reducing the diversity in practice for the treatment of these issues. The areas identified include: debt prepayment or debt extinguishment costs; settlement of zero-coupon debt instruments; contingent consideration payments made after a business combination; proceeds from the settlement of insurance claims; proceeds from the settlement of corporate-owned life insurance policies; distributions received from equity method investees; beneficial interests in securitization transactions; and application of the predominance principle with respect to separately identifiable cash flows. The guidance will generally be applied retrospectively and is effective for public business entities for fiscal years beginning after 15 December 2017, and interim periods within those years. For all other entities, it is effective for fiscal years beginning after 15 December 2018, and interim periods within fiscal years beginning after 15 December 2019. Early adoption is permitted. The Company is currently evaluating the effect that this guidance will have on its financial statements and related disclosures.

3. Fair Value Measurements

The Company determines the fair value of financial and non-financial assets and liabilities based on the assumptions that market participants would use in pricing the asset or liability in an orderly transaction between market participants at the measurement date. The identification of market participant assumptions provides a basis for determining what inputs are to be used for pricing each asset or liability. A fair value hierarchy has been established which gives precedence to fair value measurements calculated using observable inputs over those using unobservable inputs. This hierarchy prioritized the inputs into three broad levels as follows:

- Level 1: Quoted prices in active markets for identical instruments
- Level 2: Other significant observable inputs (including quoted prices in active markets for similar instruments)
- Level 3: Significant unobservable inputs (including assumptions in determining the fair value of certain investments)

The carrying amounts of financial instruments such as cash and cash equivalents, restricted cash, contribution receivable, prepaid expenses and other current assets, accounts payable, accrued compensation, accrued and other current liabilities approximate the related fair values due to the short maturities of these instruments.

UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS

The fair value of the Company cost method investment is measured when it is deemed to be other-than-temporarily impaired.

The Company's financial assets subject to fair value measurements on a recurring basis and the level of inputs used in such measurements were as follows:

	December 31, 2016			
	Total	Level 1	Level 2	Level 3
	(in thousands)			
Money market funds	\$89,597	\$89,597	\$ —	\$ —
Total	<u>\$89,597</u>	<u>\$89,597</u>	<u>\$ —</u>	<u>\$ —</u>
	December 31, 2017			
	Total	Level 1	Level 2	Level 3
	(in thousands)			
Money market funds	\$ 5,709	\$5,709	\$ —	\$ —
Short-term marketable securities:				
Commercial paper	6,359	—	6,359	—
Corporate debt securities	16,149	—	16,149	—
Asset-backed securities	14,588	—	14,588	—
U.S. government debt securities	42,116	—	42,116	—
Long-term marketable securities:				
Asset-backed securities	2,742	—	2,742	—
U.S. government debt securities	2,376	—	2,376	—
Total marketable securities	<u>84,330</u>	<u>—</u>	<u>84,330</u>	<u>—</u>
Total	<u>\$90,039</u>	<u>\$5,709</u>	<u>\$84,330</u>	<u>\$ —</u>

The Company estimates the fair value of its money market funds, commercial paper, corporate debt securities, asset-backed securities, and U.S. government debt securities taking into consideration valuations obtained from third-party pricing services. The pricing services utilize industry standard valuation models, including both income and market-based approaches, for which all significant inputs are observable, either directly or indirectly, to estimate fair value. These inputs include reported trades of and broker/dealer quotes on the same or similar securities, issuer credit spreads; benchmark securities; prepayment/default projections based on historical data; and other observable inputs.

There were no transfers within the hierarchy during the years ended December 31, 2016 and 2017.

The grant date fair value of the Company's common stock has been determined by the Company's Board of Directors with the assistance of management and an independent third-party valuation specialist. The grant date fair value of the Company's common stock was determined using valuation methodologies which utilizes certain assumptions including probability weighting of events, volatility, time to liquidation, a risk-free interest rate and an assumption for a discount for lack of marketability (Level 3 inputs). In determining the fair value of the Company's common stock, the methodologies used to estimate the enterprise value of the Company were performed using methodologies, approaches, and assumptions consistent with the American Institute of Certified Public Accountants Accounting and Valuation Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation* ("AICPA Accounting and Valuation Guide").

UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS

4. Marketable Securities

The Company had no marketable securities as of December 31, 2016. Marketable securities consisted of the following as of December 31, 2017:

	December 31, 2017			Fair Value
	Amortized Cost Basis	Unrealized Gains	Unrealized Losses	
	(in thousands)			
Short-term marketable securities:				
Commercial paper	\$ 6,369	\$ —	\$ (10)	\$ 6,359
Corporate debt securities	16,162	—	(13)	16,149
Asset-backed securities	14,604	—	(16)	14,588
U.S. government debt securities	42,172	—	(56)	42,116
Total short-term marketable securities	79,307	—	(95)	79,212
Long-term marketable securities:				
Asset-backed securities	2,752	—	(10)	2,742
U.S. government debt securities	2,375	1	—	2,376
Total long-term marketable securities	5,127	1	(10)	5,118
Total marketable securities	<u>\$ 84,434</u>	<u>\$ 1</u>	<u>\$ (105)</u>	<u>\$84,330</u>

For the year ended December 31, 2017, the Company recognized no material realized gains or losses on marketable securities. There were gross unrealized losses on investments of \$0.1 million with an aggregate fair value of \$80.2 million for the year ended December 31, 2017. None of the Company's investments have been in an unrealized loss position for more than a year. Based on the scheduled maturities of its investments, the Company concluded that the unrealized losses in its investment securities are not other-than-temporary, as it is more likely than not that the Company will hold these investments for a period of time sufficient for a recovery of its cost basis. The maturities of the Company's long-term marketable securities generally range from one to two years.

5. License Agreements

License Agreements with Research Institutions

The Company has entered into license agreements with various research institutions which have provided the Company with rights to patents, and in certain cases, research "know-how" and proprietary research tools to research, develop and commercialize drug candidates. In addition to upfront consideration paid to these various research institutions in either cash or shares of the Company's common stock, the Company may be obligated to pay milestone payments specific to each agreement on achievement of certain specified clinical development and/or sales events. The milestone payments are in the form of cash payments or the issuance of additional shares of common stock. The aggregate number of additional shares of common stock issuable for these license agreements with research institutions is 72,881 shares. The Company is also obligated to pay low-single digit percentage tiered royalties based on sales of products commercialized from these agreements. The achievement of milestones is dependent on successful completion of clinical studies, FDA approval, and meeting certain sales thresholds. None of these events had occurred and no milestone or royalty payments have been recognized as of December 31, 2016 and 2017.

UNITY BIOTECHNOLOGY, INC.
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Prior to 2016, the Company issued an aggregate of 816,948 shares of its common stock as consideration for entering into these license agreements. In 2016, the Company issued an aggregate of 67,796 shares of its common stock as consideration for entering into these license agreements. The fair value of these shares, which was immaterial, was recorded as research and development expense when issued. The Company did not issue any equity instruments related to license agreements in 2017.

License and Compound Library and Option Agreement

In February 2016, the Company entered into a license agreement with a privately held clinical-stage biopharmaceutical company to research, develop, and seek and obtain marketing approval for a licensed compound. In February 2016, in conjunction with this license agreement, the Company also entered into a compound library and option agreement with the same biopharmaceutical company to identify compounds with potential utility in the treatment of age-related conditions other than indications in oncology. As part of these agreements, the Company issued 533,335 shares of common stock to the biopharmaceutical company and 133,333 shares of common stock to an academic institution who previously licensed technology to the biopharmaceutical company. The fair value of these shares recorded as research and development expense during the year ended December 31, 2016 was insignificant.

This license agreement included contingent consideration of up to 666,670 shares of additional common stock to be issued, up to \$70.3 million of milestone payments based on achievement of certain specified clinical development and sales milestone events and tiered royalties in the low-single digits based on sales of licensed products. The milestones are achieved upon occurrence of events which include the filing of an investigational drug application, the commencement of clinical studies, and Food and Drug Administration and/or European Medicines Agency approval. As of December 31, 2016 and 2017, none of the milestones had been achieved and no royalties were due from the sales of licensed products.

In connection with the compound library and option agreement, the Company received an equity interest for 275,766 ordinary shares of an affiliate of the biopharmaceutical company at an aggregate purchase price of \$0.5 million, which represents an insignificant level of ownership in the entity and approximates the fair value of the shares received. The Company has a commitment to invest an additional \$0.5 million in this entity in the future. The investment in ordinary shares has been recorded as a cost method investment in the Company's financial statements.

The Company also agreed to provide funding to the biopharmaceutical company for research and development work performed at a cost of up to \$2.0 million through February 2020. During the years ended December 31, 2016 and 2017, the Company recorded \$0.4 million and \$0.5 million, respectively, in research and development expense under the research services agreement.

Under the consolidation guidance, the Company determined that the biopharmaceutical company is a VIE. The Company does not have the power to direct the activities that most significantly affect the economic performance of this entity and as such the Company is not the primary beneficiary and consolidation is not required.

As of December 31, 2016 and 2017, the Company has not provided financial, or other, support to the biopharmaceutical company that was not contractually required.

UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS

6. Contribution Arrangement

In July 2017, the Company entered an arrangement with a third-party organization under which the Company would be provided with up to \$1.5 million of funding for the performance of certain research and development activities during the 90-day period following the arrangement in pursuit of the third-party organization's philanthropic mission. All conditions related to this contribution were met during 2017 and the Company recognized \$1.4 million under this arrangement, which was recorded as contribution revenue in the statement of operations and a contribution receivable on the balance sheet.

7. Balance Sheet Components

Property and Equipment, Net

Property and equipment, net, consists of the following:

	<u>December 31,</u>	
	<u>2016</u>	<u>2017</u>
	(in thousands)	
Laboratory equipment	\$1,073	\$ 2,614
Computer equipment	35	137
Furniture and fixtures	6	105
Leasehold improvements	—	5,346
Total property and equipment	<u>1,114</u>	<u>8,202</u>
Less: accumulated depreciation and amortization	(166)	(1,470)
Construction in progress	<u>1,300</u>	<u>226</u>
Total property and equipment, net	<u>\$2,248</u>	<u>\$ 6,958</u>

Depreciation expense related to property and equipment was \$0.2 million and \$1.3 million for the years ended December 31, 2016 and 2017, respectively.

Accrued and Other Current Liabilities

Accrued and other current liabilities consist of the following:

	<u>December 31,</u>	
	<u>2016</u>	<u>2017</u>
	(in thousands)	
Accrued research and development	\$ 541	\$2,105
Deferred rent, current portion	632	702
Professional fees	421	70
Accrued other	<u>559</u>	<u>461</u>
	<u>\$2,153</u>	<u>\$3,338</u>

8. Commitments and Contingencies

Indemnifications

The Company indemnifies each of its officers and directors for certain events or occurrences, subject to certain limits, while the officer or director is or was serving at the Company's request in such

UNITY BIOTECHNOLOGY, INC.
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capacity, as permitted under Delaware law and in accordance with the Company's amended and restated certificate of incorporation and bylaws. The term of the indemnification period lasts as long as an officer or director may be subject to any proceeding arising out of acts or omissions of such officer or director in such capacity.

The maximum amount of potential future indemnification is unlimited; however, the Company currently holds director and officer liability insurance. This insurance allows the transfer of risk associated with the Company's exposure and may enable the Company to recover a portion of any future amounts paid. The Company believes that the fair value of these indemnification obligations is minimal. Accordingly, the Company has not recognized any liabilities relating to these obligations for any period presented.

Operating Lease

In May 2016, the Company executed a non-cancellable lease agreement for office and laboratory space in Brisbane, California which commenced in May 2016 and continues through October 2022. The lease agreement includes an escalation clause for increased rent and a renewal provision allowing the Company to extend this lease for an additional four years by giving the landlord written notice of the election to exercise the option at least fifteen months prior to the original expiration of the lease term. The lease provides for monthly base rent amounts escalating over the term of the lease and the lessor provided the Company a \$3.9 million tenant improvement allowance to complete the laboratory and office renovation. The Company recorded the tenant improvement allowance as deferred rent liability and prepaid expenses and other current assets on the balance sheet at December 31, 2016 which was reclassified to leasehold improvement within property and equipment, net when realized in 2017. In May 2017, the Company entered into an amendment to expand the leased space and received a three-month rent holiday for the expanded space.

As of December 31, 2017, the Company's future minimum payments under the noncancelable operating lease is as follows:

<u>Year ending December 31,</u>	<u>Amount</u> <u>(in thousands)</u>
2018	\$ 1,846
2019	2,012
2020	2,072
2021	2,135
2022	1,621
Total future minimum lease payments	<u>\$ 9,686</u>

Rent expense was \$0.8 million and \$2.0 million and for the years ended December 31, 2016 and 2017, respectively.

9. Related-Party Transactions

Recourse Notes

In December 2015, April 2016, and July 2016, the Company issued three full-recourse promissory notes to two executive officers for an aggregate principal amount of \$0.2 million with an interest rate of 2.5% per annum. All of the principal was used to early exercise options for 667,253 shares of the Company's common stock, in aggregate.

UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS

In October 2017, the Company issued two promissory notes to an executive officer for \$1.6 million and \$0.5 million, each with an interest rate of 1.85% per annum. The aggregate principal amount of \$2.1 million was used to purchase 625,084 shares of restricted stock. The promissory notes were considered to be non-recourse in substance and accordingly, the shares sold subject to such promissory notes are considered an option for accounting purposes. See further discussion in Note 12.

Financing Activities

During the year ended December 31, 2016, the Company issued convertible preferred stock and convertible notes for total proceeds of \$32.8 million to shareholders and certain executive officers who are considered to be related parties. All of the convertible notes converted into shares of series B preferred stock during 2016. During the year ended December 31, 2017, the Company issued additional shares of Series B convertible preferred stock for total proceeds of \$8.0 million to one of these related party shareholders.

Other

In 2017, the Company entered into a master services agreement with a significant shareholder who is considered a related party. The Company incurred a total of \$0.6 million of research and development expenses during the year ended December 31, 2017 related to this agreement.

10. Convertible Notes

In June and November 2015, the Company issued convertible promissory notes (the "2015 Notes") for cash proceeds of \$4.0 million. The 2015 Notes were unsecured, bore an interest rate of 5% per year, and had a maturity date of June 1, 2017. In February 2016, all the outstanding 2015 Notes and related accrued interest of \$0.1 million was converted into an aggregate of 4,671,430 shares of the Company's Series A-2 convertible preferred stock at a conversion price of \$0.876 per share pursuant to a voluntary conversion option.

In February, April, May, July, September and October 2016, the Company issued separate convertible promissory notes (the "2016 Notes") for cash proceeds of \$16.9 million. The 2016 Notes were unsecured, bore an interest rate of 5% per year, and had a maturity date of December 31, 2017. The 2016 Notes issued in February, April, and May 2016, contained a contingent beneficial conversion feature that was subsequently bifurcated and resulted in a discount of \$2.0 million that was allocated to these 2016 Notes and recognized as interest expense in the statement of operations upon conversion of the 2016 Notes. In October 2016, all of the outstanding 2016 Notes issued in February, April, and May 2016 and related accrued interest of \$0.3 million was converted into an aggregate of 2,147,431 shares of the Company's Series B convertible preferred stock. Due to certain embedded features within the 2016 Notes issued in July, September and October 2016, the Company elected to account for these notes and all their embedded features under the fair value option. The Company recognized these July, September and October 2016 Notes at fair value, rather than at historical cost, with changes in fair value recorded in the statement of operations until October 2016 when the notes were extinguished in connection with the Series B convertible preferred stock financing. The Company recognized a \$9.4 million loss on extinguishment based on the difference in the fair value of the 2016 Notes issued in July, September and October and the fair value of an aggregate of 1,568,236 shares of Series B convertible preferred stock for which these notes were settled.

UNITY BIOTECHNOLOGY, INC.
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11. Convertible Preferred Stock and Common Stock

Convertible Preferred Stock

The Company is authorized to and has issued two classes of stock: convertible preferred stock and common stock. Convertible preferred stock is carried at the issuance price, net of issuance costs.

In July 2013, the Company sold an aggregate of 2,887,086 shares of Series A-1 convertible preferred stock at \$0.864 per share for gross proceeds of \$2.0 million. From January 2014 through March 2015, the Company closed three tranches of Series A-2 convertible preferred stock financing and sold an aggregate of 5,826,839 shares of Series A-2 convertible preferred stock at \$0.876 per share for gross proceeds of \$4.9 million.

In February 2016, the Company closed the final tranche of Series A-2 convertible preferred stock financing by selling an aggregate of 4,671,430 shares of Series A-2 convertible preferred stock at \$0.876 per share for gross proceeds of \$4.0 million.

In October 2016, the Company closed the first tranche of its Series B round of financing by selling an aggregate of 7,519,592 shares of Series B convertible preferred stock at \$12.125 per share for gross proceeds of \$91.2 million, with an additional \$9.0 million of Series B convertible preferred stock to be sold to two investors within 180 days of the first tranche closing at the issuance price per share of the Series B convertible preferred stock. The Company accounted for this issuance as forward options to issue shares at a fixed price. As the forward options expired in 180 days, and there was limited expected volatility in the Series B convertible preferred stock issuance price, the value of the forward options was considered immaterial at December 31, 2016. In March 2017, the Company issued an aggregate of 659,821 shares of Series B convertible preferred stock at \$12.125 per share for gross proceeds of \$8.0 million in full settlement of one of the forward options while the other expired unexercised.

In June 2017, the Company closed the second and final tranche of its Series B convertible preferred stock round of financing by selling an aggregate of 2,879,288 shares of Series B convertible preferred stock at \$12.125 per share for gross proceeds of \$34.9 million.

Included in the terms of the Series B Preferred Stock Agreement were rights to purchase additional tranches of Series B convertible preferred stock under the same terms as those provided at the initial closing. The Company did not separately account for these tranche purchase rights as a forward option as neither the purchasers nor the Company had a commitment or obligation to purchase or sell additional shares until the tranche closing occurred.

The Company evaluated the other rights, preferences and privileges of each series of convertible preferred stock and concluded that there were (i) no freestanding derivative instruments, or (ii) any embedded derivatives requiring bifurcation, or (iii) the fair value of any such freestanding derivative instruments requiring bifurcation was insignificant.

UNITY BIOTECHNOLOGY, INC.
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Convertible preferred stock consisted of the following:

	At December 31, 2016			
	Shares Authorized	Shares Issued and Outstanding	Liquidation Preference	Carrying Value
	(in thousands, except for share amounts)			
Series A-1	9,085,738	2,887,086	\$ 2,495	\$ 2,457
Series A-2	32,653,411	10,498,269	9,198	9,214
Series B	38,000,000	11,235,260	136,222	119,418
Total convertible preferred stock	<u>79,739,149</u>	<u>24,620,615</u>	<u>\$ 147,915</u>	<u>\$ 131,089</u>

	At December 31, 2017			
	Shares Authorized	Shares Issued and Outstanding	Liquidation Preference	Carrying Value
	(in thousands, except for share amounts)			
Series A-1	9,085,738	2,887,086	\$ 2,495	\$ 2,457
Series A-2	32,653,411	10,498,269	9,198	9,214
Series B	50,000,000	14,774,369	179,132	162,285
Total convertible preferred stock	<u>91,739,149</u>	<u>28,159,724</u>	<u>\$ 190,825</u>	<u>\$ 173,956</u>

Conversion Rights

Each share of convertible preferred stock is convertible at the right and option of the stockholder, at any time after the date of issuance, into such number of fully paid and non-assessable shares of common stock on a one for one ratio (1:1 conversion ratio). The Series A-1 conversion price is \$0.864 per share, the Series A-2 conversion price is \$0.876 per share and the Series B conversion price is \$12.125 per share, in each case, subject to certain antidilution adjustments as provided in the Company's amended and restated certificate of incorporation.

Each share of convertible preferred stock will automatically convert into a fully paid, non-assessable share of common stock at the then-effective conversion rate for such share (i) upon the closing of a firm commitment, underwritten initial public offering of the Company's common stock at an aggregate offering price of not less than \$30.0 million and a price per share to the public of not less than \$12.125 per share, or (ii) upon the receipt by the Company of a written request for such conversion from at least 60% of holders the convertible preferred stock then outstanding (voting together as a single class and on an as-converted basis), or if later, the effective date for conversion specified in such requests.

Liquidation Rights

In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company or a deemed liquidation event, as further defined in the Company's amended and restated certificate of incorporation, prior to and in preference to any distribution of any of the assets of the Company to the holders of the Series A convertible preferred stock and the holders of common stock, the holders of Series B convertible preferred stock shall be paid, on a pari passu basis, an amount per share equal to the Series B liquidation preference of \$12.125 per share, plus an amount equal to any dividends declared but unpaid thereon (the "Series B Liquidation Preference"). If upon any such liquidation,

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NOTES TO THE FINANCIAL STATEMENTS

dissolution or winding up of the Company or a deemed liquidation event, the assets of the Company available for distribution to its stockholders shall be insufficient to pay the holders of Series B convertible preferred stock the full Series B Liquidation Preference, the holders of the Series B convertible preferred stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

After the payment or setting aside for payment to the holders of the Series B convertible preferred stock of the full amount of the Series B Liquidation Preference, prior to any distribution of any of the assets of the Company to the holders of the common stock, the holders of Series A-1 and Series A-2 convertible preferred stock shall be paid, on a pari passu basis, an amount per share equal to \$0.864 per share for Series A-1 and \$0.876 per share for Series A-2, plus, in each case, an amount equal to any dividends declared but unpaid thereon (the "Series A Liquidation Preference"). If upon any such liquidation, dissolution or winding up of the Company or deemed liquidation event, the assets of the Company available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series A-1 and Series A-2 convertible preferred stock the full amount to which they shall be entitled, the holders of the Series A-1 and Series A-2 convertible preferred stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

After the payments or setting aside for payment to the holders of convertible preferred stock of the full amounts specified above, the entire remaining assets of the Company legally available for distribution shall be distributed pro rata to holders of the common stock of the Company in proportion to the number of shares of common stock held by them.

Voting Rights

The holders of outstanding shares of Series A-1 and Series A-2 convertible preferred stock, voting together as a single class, are entitled to elect two members of the Company's Board of Directors. The holders of outstanding shares of Series B convertible preferred stock, voting together as a single class, are entitled to elect one member of the Company's Board of Directors.

Additionally, each holder of the Company's convertible preferred stock is entitled to a vote equal to the number of shares of common stock into which the shares of convertible preferred stock could be converted as of the record date. The holders of convertible preferred are be entitled to vote on all matters on which the common stock shall be entitled to vote.

Dividend Rights

Holders of the Series A-1, Series A-2 and Series B convertible preferred stock are entitled to receive non-cumulative dividends at a rate of 6% of the original respective series of convertible preferred stock issuance price. Only after payment of the dividends to the holders of Series B convertible preferred stock shall the holders of shares of Series A-1 and Series A-2 convertible preferred stock be entitled to receive dividends, out of any assets legally available therefore, prior and in preference to any declaration or payment of any dividend (other than dividends on the common stock payable solely in common stock) on the common stock.

After the payment or setting aside for payment of the dividends described above, any additional dividends (other than dividends on common stock payable solely in common stock) set aside or paid in

UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS

any fiscal year shall be set aside or paid among the holders of the convertible preferred stock and common stock then outstanding on a pari passu basis in proportion to the greatest whole number of shares of common stock which would be held by each such holder if all shares of convertible preferred stock were converted at the then-effective conversion rate.

Dividends are only payable as and if declared by the Board of Directors. To date, the Company has not declared or paid any dividends.

Redemption Rights

The convertible preferred stock is not mandatorily redeemable as it does not have a set redemption date or a date after which the shares may be redeemed by the holders. A redemption event will occur only upon the occurrence of certain change in control events that are outside the Company's control, including a sale, lease, transfer, or other disposition of all or substantially all of the Company's assets. The Company has elected not to adjust the carrying values of the convertible preferred stock to the liquidation preferences of such shares because it is uncertain whether or when an event would occur that would obligate the Company to pay the liquidation preferences to holders of shares of convertible preferred stock. Subsequent adjustments to the carrying values of the liquidation preferences will be made only when it becomes probable that such a liquidation event will occur.

Common Stock

Subject to the rights, if any, of the holders of convertible preferred stock, each holder of shares of common stock are entitled to one vote for each share thereof held, and are entitled to notice of any meeting of stockholders in accordance with the Bylaws of the Company, and are entitled to vote upon such matters and in such manner as provided in the amended and restated certificate of incorporation and as may be provided by law. The number of authorized shares of common stock may be increased or decreased (but not below the number of shares thereof then outstanding or reserved for issuance) by the affirmative vote of the holders of a majority of the capital stock of the Company entitled to vote (as determined viewing the preferred stock on an as-if converted to common stock basis) and without a separate class vote of the common stock.

As of December 31, 2017, the Company had reserved shares of common stock for issuance as follows:

Series A-1 convertible preferred stock	2,887,086
Series A-2 convertible preferred stock	10,498,269
Series B convertible preferred stock	14,774,369
Options issued and outstanding	4,365,694
Options available for future grants	918,595
Contingently issuable shares under in-licensing agreements	739,551
Warrants to purchase convertible preferred stock	763,501
Warrants to purchase common stock	96,610
Total	<u>35,043,675</u>

**UNITY BIOTECHNOLOGY, INC.
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12. Stock-Based Compensation

2013 Equity Incentive Plan

In June 2013, the Company adopted the 2013 Equity Incentive Plan (the "Plan"), which provides for the granting of incentive stock options ("ISOs"), non-statutory stock options ("NSOs") and restricted shares to employees, directors, and consultants at the discretion of management and the Board of Directors. As of December 31, 2017, there were an aggregate of 6,720,478 shares of common stock authorized for issuance under the Plan.

The exercise price of an ISO and NSO shall not be less than 100% of the estimated fair value of the shares on the date of grant, and the exercise price of an ISO and NSO granted to a 10% stockholder shall not be less than 110% of the estimated fair value of the shares on the date of grant. For awards granted between September 2017 and December 2017 with an exercise price of \$3.42, a deemed fair value ranging from \$3.95 to \$5.43 per share was used in calculating stock-based compensation expense, which was determined using management hindsight. Options granted under the Plan expire no later than 10 years from the date of grant and generally vest over a four-year period but may be granted with different vesting terms. The Plan also provides that unvested options that were not exercised as of an employee's termination date shall revert to the Plan.

The Company permits early exercise of certain stock options prior to vesting. These unvested shares are subject to repurchase by the Company at the original issuance price in the event the optionee's employment is terminated either voluntarily or involuntarily. The amounts paid for shares purchased under an early exercise of stock options and subject to repurchase by the Company are reported as a liability and reclassified into additional paid-in capital as the shares vest. As of December 31, 2016 and 2017, 1,287,435 and 831,439 shares of common stock, respectively, were subject to repurchase related to early exercise with a resulting short-term liability balance of \$0.4 million and \$0.3 million, respectively. During the years ended December 31, 2016 and 2017, the Company repurchased zero and 155,518 shares of common stock, respectively, related to unvested early-exercised options.

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Stock Option Activity

A summary of the Company's stock option activity under the Plan is as follows:

	Shares Available for Grant	Outstanding Options	Weighted- Average Exercise Price	Weighted- Average Remaining Contract Term (in Years)	Aggregate Intrinsic Value (in thousands)
Balances at December 31, 2015	978,271	741,249	\$ 0.27		
Authorized	2,850,185	—	—		
Granted	(1,259,385)	1,259,385	0.32		
Exercised	—	(1,436,902)	0.31		
Canceled	55,314	(55,314)	0.28		
Balances at December 31, 2016	2,624,385	508,418	\$ 0.26		
Authorized	1,870,204	—	—		
Granted	(3,784,727)	3,784,727	3.40		
Exercised	—	(43,727)	0.30		
Repurchased	155,518	—	—		
Canceled	53,215	(53,215)	3.00		
Balances at December 31, 2017	<u>918,595</u>	<u>4,196,203</u>	\$ 3.06	9.15	\$ 11,925
Vested and exercisable at December 31, 2017		<u>858,272</u>	\$ 2.03	8.23	\$ 3,322
Vested and expected to vest at December 31, 2017		<u>4,196,203</u>	\$ 3.06	9.15	\$ 11,925

The total intrinsic value of options exercised was \$20,000 and \$0.1 million for the years ended December 31, 2016 and 2017, respectively. The weighted-average estimated fair value of stock options granted was \$0.32 and \$3.40 for the years ended December 31, 2016 and 2017, respectively.

The aggregate intrinsic value of options exercisable was \$1.1 million and \$3.3 million as of December 31, 2016 and 2017, respectively.

As of December 31, 2017, the total stock-based compensation cost related to options granted but not yet amortized was \$8.7 million and will be recognized over a weighted-average period of approximately 3.8 years. The total grant-date fair value of stock options granted to employees that vested during the year ended December 31, 2017 was approximately \$1.5 million.

Stock Options Granted to Employees with Service-Based Vesting

The fair value of stock options granted to employees was estimated on the date of grant using the Black-Scholes option pricing model using the following assumptions:

	Year Ended December 31,	
	2016	2017
Expected dividend yield	—	—
Expected term of options (in years)	5.3–6.1	5.6–6.7
Risk-free interest rate	1.2%–2.1%	1.8%–2.2%
Expected stock price volatility	76.1%–79.7%	77.0%–82.0%

UNITY BIOTECHNOLOGY, INC.
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The valuation assumptions were determined as follows:

Expected Term—The expected term represents the period that the options granted 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) as the Company has concluded that its stock option exercise history does not provide a reasonable basis upon which to estimate expected term.

Expected Volatility—The Company used an average historical stock price volatility of comparable public companies within the biotechnology and pharmaceutical industry that were deemed to be representative of future stock price trends as the Company does not have any trading history for its common stock. 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 Company based the risk-free interest rate over the expected term of the options based on the constant maturity rate of U.S. Treasury securities with similar maturities as of the date of the grant.

Expected Dividends—The Company has never paid any dividends and does not plan to pay dividends in the foreseeable future. Therefore, the expected dividend yield is zero.

Performance Contingent Stock Options Granted to Employees

During the year ended December 31, 2016 and 2017, the Board of Directors granted performance contingent stock option awards exercisable for 200,216 and 75,704 shares, respectively, to certain of the Company's executive officers. These awards had a weighted average exercise price of \$0.31 and \$3.41, respectively, which was based on the fair market value on the grant date, as determined by the Board of Directors, and vest upon the successful achievement of one or more specified performance goals.

The total estimated fair value of employee performance contingent stock option awards was estimated at the date of grant using a Black-Scholes option-pricing model using the same assumptions as the stock options granted to employees with service-based vesting conditions, and for grants in 2016 and 2017 was \$50,000 and \$208,000, respectively. As of December 31, 2016 and 2017, the Company determined that the achievement of the requisite performance conditions was not probable and, as a result, no compensation cost was recognized for the performance contingent awards.

Performance and Market Contingent Stock Options Granted to Employees

During the year ended December 31, 2016 and 2017, the Board of Directors granted performance and market contingent stock option awards exercisable for 133,476 and 227,115 shares, respectively, to certain members of the Company's senior management team. These awards had a weighted average exercise price of \$0.31 and \$3.41, respectively, which were based on the fair market value on the grant date, as determined by the Board of Directors. The total estimated grant-date fair value of these options was \$21,000 and \$497,000 in 2016 and 2017, respectively. Key assumptions in the valuation model included expected volatility, a risk-free interest rate, expected dividend yield, and an expected term unique to the terms of these awards.

Of the total 360,591 shares under performance and market contingent awards, 142,442 shares have three separate market triggers for vesting based upon (i) the closing of a financing where the Company sells shares of its equity securities to institutional investors at a minimum price per share, (ii) a change in control with aggregate proceeds payable to the Company's common stock at a

UNITY BIOTECHNOLOGY, INC.
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minimum price per share, or (iii) an initial public offering that becomes effective at a minimum specified price per share. The remaining 218,149 shares have three separate market triggers for vesting based upon (i) the closing of a financing where the Company sells shares of its equity securities to institutional investors at a minimum pre-money valuation, (ii) a change in control with a minimum aggregate proceeds payable to the Company's common stock, or (iii) an initial public offering that becomes effective with a minimum market capitalization, as measured by a trailing 30 day volume-weighted average price.

By definition, the market condition in these awards can only be achieved after the performance condition of a liquidity event has been achieved. As such, the requisite service period is based on the estimated period over which the market condition can be achieved. When a performance goal is deemed to be probable of achievement, time-based vesting and recognition of stock-based compensation expense commences. As of December 31, 2016 and 2017, the Company determined that the achievement of the requisite performance conditions was not probable and, as a result, no compensation cost was recognized for these awards.

Stock-Based Compensation for Nonemployees

The Company has granted options to purchase shares of common stock to consultants in exchange for services performed. During the years ended December 31, 2016 and 2017, the Company granted options to purchase an aggregate of 350,213 and 235,250 shares (of which an aggregate of 169,491 were issued outside of the Plan) of the Company's common stock with a weighted average exercise price of \$0.32 and \$3.39 per share, respectively.

The fair value of stock options granted to nonemployees was estimated on the date of grant using the Black-Scholes option pricing model. The valuation assumptions used were substantially consistent with the assumption used to value the employee options with the exception of the expected term which was based on the contractual term of the award. During the years ended December 31, 2016 and 2017, stock-based compensation expense recognized related to nonemployee options was \$0.1 million and \$0.4 million, respectively.

During the year ended December 31, 2016, non-employees were granted stock options with vesting terms based on various performance conditions. When a performance condition is deemed to be probable of achievement, the vesting and recognition of stock-based compensation expense occurs for those stock options. In the event any vesting terms are not achieved by the specified timelines, such vesting tranche will terminate and no longer be exercisable with respect to that portion of the shares. The total fair value of these awards was \$0.1 million as of December 31, 2016. The Company determined that the achievement of certain performance conditions was probable as of December 31, 2016 and compensation cost was recognized for those performance awards. As of December 31, 2017, no additional performance conditions were determined to be probable and no additional compensation cost was recognized.

UNITY BIOTECHNOLOGY, INC.
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Restricted Stock

A summary of the Company's restricted stock activity for the years ended December 31, 2016 and 2017 was as follows:

	<u>Shares</u>	<u>Weighted Average Grant Date Fair Value</u>
Unvested at December 31, 2015	—	
Granted	76,271	\$ 0.32
Vested	<u>(76,271)</u>	<u>\$ 0.32</u>
Unvested at December 31, 2016	—	
Granted	625,931	\$ 4.57
Vested	<u>(146,960)</u>	<u>\$ 4.57</u>
Unvested at December 31, 2017	<u>478,971</u>	<u>\$ 4.57</u>

In October 2017, the Company and an executive officer entered into two restricted stock agreements whereby the executive officer purchased an aggregate of 625,084 shares of restricted stock of which 146,113 shares vested immediately, 119,742 shares vest on January 1, 2018 and 359,229 shares vest on January 1, 2019. As discussed in Note 9, the purchase of the restricted stock was through the issuance of promissory notes which were considered to be non-recourse in substance and accordingly, considered an option for accounting purposes. The Company measured compensation cost for this option based on its fair value on the grant date using the Black-Scholes option pricing model considering an expected term commensurate with the expected timing to a liquidity event which would trigger repayment of these promissory notes and an exercise price consistent with the repayment term of the promissory notes. The Company is recognizing compensation cost over the requisite service period with an offsetting credit to additional paid-in capital. The shares of restricted stock have only been included in the shares issued and outstanding as such shares are legally issued.

As of December 31, 2017, the total unrecognized stock-based compensation cost related to unvested restricted stock was \$0.8 million which will be recognized over the remaining period of one year.

Stock-Based Compensation Expense

The following table sets forth the total stock-based compensation expense for all options granted to employees and nonemployees, including shares sold through the issuance of non-recourse promissory notes which are considered to be options for accounting purposes (as discussed above and in Note 9), included in the Company's statement of operations:

	<u>Year Ended December 31,</u>	
	<u>2016</u>	<u>2017</u>
	(in thousands)	
Research and development	\$ 164	\$ 1,695
General and administrative	60	1,339
Total	<u>\$ 224</u>	<u>\$ 3,034</u>

UNITY BIOTECHNOLOGY, INC.
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13. Warrants

In June 2013, the Company granted warrants to its then Chief Executive Officer (“CEO”), considered to be a related party, to purchase 192,823 shares of Series A-1 convertible preferred stock with an exercise price of \$0.65 per share and 190,226 shares of Series A-2 convertible preferred stock at a price of \$0.66 per share as compensation. In January 2015, the Company granted warrants to the aforementioned CEO to purchase an aggregate of 380,452 shares of Series A-2 convertible preferred stock with an exercise price of \$0.66 per share as compensation. These warrants are exercisable beginning on January 1, 2018 and will expire on the earlier of (i) December 31, 2018, (ii) December 31 of the year in which a change of control occurs or (iii) December 31 of the year in which the holder terminates service. As the warrants were issued as compensation and are considered equity-classified awards, they are not recorded as a liability until vested and exercisable on January 1, 2018. Upon vesting, the Company is contingently obligated to issue convertible preferred stock and the warrants will be recorded as a liability and re-measured in each subsequent period until the warrants expire, are exercised or convert into warrants to purchase common stock.

In October 2013, the Company granted warrants to a nonemployee to purchase an aggregate of 96,610 shares of common stock with an exercise price of \$0.18 per share of which 9,425 warrants vested immediately. The remainder of the warrants are subject to a vesting schedule tied to certain milestone achievements, none of which were probable of being achieved as of December 31, 2016 and 2017. As of December 31, 2016, and 2017, none of these warrants have been exercised. The warrants will expire at the earlier of October 2023 or a closing of an underwritten initial public offering of the Company’s common stock.

14. Net Loss and Unaudited Pro Forma Net Loss per Common Share

The following table sets forth the computation of the Company’s basic and diluted net loss per common share:

	<u>December 31,</u>	
	<u>2016</u>	<u>2017</u>
	<u>(in thousands, except share and per share amounts)</u>	
Numerator:		
Net loss	<u>\$ (30,404)</u>	<u>\$ (44,656)</u>
Denominator:		
Weighted average number of shares outstanding—basic and diluted	<u>2,662,841</u>	<u>3,197,516</u>
Net loss per share—basic and diluted	<u>\$ (11.42)</u>	<u>\$ (13.97)</u>

UNITY BIOTECHNOLOGY, INC.
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Since the Company was in a loss position for all periods presented, basic net loss per common share is the same as diluted net loss per common share as the inclusion of all potential common shares outstanding would have been anti-dilutive. Potentially dilutive securities that were not included in the diluted per share calculations because they would be anti-dilutive were as follows:

	December 31,	
	2016	2017
Convertible preferred stock	24,620,615	28,159,724
Options to purchase common stock	508,418	4,365,694
Early exercised common stock subject to future vesting	1,287,435	831,439
Restricted stock accounted for as options	—	625,084
Warrants to purchase convertible preferred stock	763,501	763,501
Warrants to purchase common stock	96,610	96,610
Total	<u>27,276,579</u>	<u>34,842,052</u>

Unaudited Pro Forma Net Loss Per Share

The following table sets forth the computation of the unaudited pro forma basic and diluted net loss per share of common stock (in thousands, except per share and per share data):

	Year Ended
	December 31, 2017 (unaudited)
Net loss used in computing pro forma net loss per share, basic and diluted	\$ (44,656)
Weighted-average shares used in computing net loss per share, basic and diluted	3,197,516
Pro forma adjustment to reflect assumed conversion of convertible preferred stock	26,841,869
Weighted-average shares of common stock used in computing pro forma net loss per share, basic and diluted	30,039,385
Pro forma net loss per share, basic and diluted	<u>\$ (1.49)</u>

15. Defined Contribution Plan

The Company sponsors a 401(k) Plan that stipulates that eligible employees can elect to contribute to the 401(k) Plan, subject to certain limitations, on a pretax basis. The Company does not match any employee contributions.

16. Income Taxes

The Company has incurred net operating losses for all the periods presented. The Company has not reflected the benefit of any such net operating loss carryforwards in the accompanying financial statements. The Company has established a full valuation allocate against its deferred tax assets due to the uncertainty surrounding the realization of such assets. All losses to date have been incurred domestically as the Company has no international operations or subsidiaries.

UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS

The effective tax rate for the years ended December 31, 2016 and 2017 is different from the federal statutory rate primarily due to the valuation allowance against deferred tax assets as a result of insufficient sources of income. The effective tax rate of the provision for income taxes differs from the federal statutory rate as follows:

	<u>Year Ended December 31,</u>	
	<u>2016</u>	<u>2017</u>
Taxes at the U.S. statutory tax rate	34.0%	34.0%
Change in valuation allowance	(21.0)	(13.3)
Other permanent differences	—	(0.5)
Non-deductible interest expense	(13.0)	—
Other	—	(1.7)
Change in tax rate due to Tax Act	—	(18.5)
Total provision for income taxes	<u>0.0%</u>	<u>0.0%</u>

The U.S. Tax Cuts and Jobs Act ("Tax Act") was enacted on December 22, 2017 and introduces significant changes to U.S. income tax law. Effective in 2018, the Tax Act reduces the U.S. statutory tax rate from 35% to 21% for years after 2017. Accordingly, the Company has remeasured its deferred taxes as of December 31, 2017 to reflect the reduced rate that will apply in future periods when these deferred taxes are settled or realized. The Company recognized a reduction to the deferred tax assets of \$8.3 million to reflect the reduced U.S. tax rate of the Tax Act, which was off-set by reduction in valuation allowance.

SAB 118 addresses the application of GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Tax Act and allows the registrant to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. The Company has recognized a net tax benefit of \$8.3 million offset by an equal amount to the valuation allowance for the provisional tax impacts related to the revaluation of deferred tax balances and included this estimate in its financial statements for the year ended December 31, 2017. The Company is in the process of analyzing the impact of the various provisions of the Tax Act. The ultimate impact may differ from provisional amounts recorded. The Company expects to complete its analysis within the measurement period in accordance with SAB 118.

UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS

The components of the Company's deferred tax assets consist of the following:

	December 31,	
	2016	2017
	(in thousands)	
Deferred tax assets:		
Net operating loss	\$ 9,621	\$ 16,530
Research and development credits	771	1,879
Stock-based compensation	—	671
Charitable Contributions	—	330
Accruals and other	473	895
Total deferred tax assets	10,865	20,305
Valuation allowance	(10,865)	(20,236)
Net deferred tax assets	—	69
Deferred tax liability	—	(69)
Net deferred tax assets	<u>\$ —</u>	<u>\$ —</u>

Realization of the future tax benefits is dependent on the Company's ability to generate sufficient taxable income within the carryforward period. Due to the Company's history of U.S. operating losses, the Company believes that the recognition of the deferred tax assets arising from the above-mentioned future tax benefits is currently not more likely than not to be realized and, accordingly, have provided a full valuation allowance against net U.S. deferred tax assets.

For the years ended December 31, 2016 and 2017, the net increase in the valuation allowance was \$7.9 million and \$9.4 million, respectively.

As of December 31, 2017, the Company had federal net operating loss carryforwards of \$64.9 million that expire beginning in 2030 if not utilized and federal tax credit carryforwards of approximately \$1.6 million that expire beginning in 2031 if not utilized. As of December 31, 2017, the Company had state net operating loss carryforwards of approximately \$65.5 million, which begin to expire in 2030. In addition, the Company had state tax credit carryforwards of approximately \$1.1 million, which do not expire.

The net operating loss and research and development credit carryforwards are subject to review and possible adjustment by the Internal Revenue Service ("IRS") and state tax authorities and may become subject to an annual limitation in the event of certain future cumulative changes in the ownership interest of significant stockholders over a three-year period in excess of 50%, as defined under Sections 382 and 383 of the Internal Revenue Code of 1986. The Company has performed this analysis and concluded \$1.0 million of net operating losses and research development credits, collectively, were limited under Section 382, which has been reflected in the amounts disclosed in the financials.

The Company determines its uncertain tax positions based on a determination of whether and how much of a tax benefit taken by the Company in its tax filings is more likely than not to be sustained upon examination by the relevant income tax authorities.

UNITY BIOTECHNOLOGY, INC.
NOTES TO THE FINANCIAL STATEMENTS

A reconciliation of the beginning and ending amounts of unrecognized tax benefits is as follows:

	December 31,	
	2016	2017
	(in thousands)	
Gross unrecognized tax benefits at January 1	\$ 114	\$2,800
Additions for tax positions taken in the current year	2,686	478
Reductions for tax positions taken in the prior year	—	(213)
Gross unrecognized tax benefits at December 31	<u>\$2,800</u>	<u>\$3,065</u>

If recognized, none of the unrecognized tax benefits as of December 31, 2016 and 2017 would reduce the annual effective tax rate, primarily due to corresponding adjustments to the valuation allowance. The Company will recognize both accrued interest and penalties related to unrecognized benefits in income tax expense. As of December 31, 2016 and 2017, no liability has been recorded for potential interest or penalties. The Company does not expect the unrecognized tax benefits to change significantly over the next 12 months.

Since the Company is in a loss carryforward position, the Company is generally subject to examination by the U.S. federal, state and local income tax authorities for all tax years in which a loss carryforward is available.

17. Subsequent Events

Approval of 2018 Incentive Award Plan

On March 13, 2018, the Company's board of directors adopted the Company's 2018 Incentive Award Plan (the "2018 Plan"). The 2018 Plan was approved by the Company's stockholders on April 20, 2018 and will become effective on the date of effectiveness of the Company's Registration Statement on Form S-1 relating to its initial public offering filed with the U.S. Securities and Exchange Commission ("IPO").

Approval of the 2018 Employee Stock Purchase Plan

On March 13, 2018, the Company's board of directors adopted the Company's 2018 Employee Stock Purchase Plan ("the 2018 ESPP"). The 2018 ESPP was approved by the Company's stockholders on April 20, 2018 and will become effective on the date of effectiveness of the Company's Registration Statement on Form S-1 relating to its IPO.

Amended and Restated Certificate of Incorporation

On March 15, 2018, the Company amended and restated its certificate of incorporation to, among other things, (i) increase its authorized shares of common stock from 122,000,000 to 140,000,000 shares, (ii) increase its authorized shares of preferred stock from 91,739,149 to 103,283,818 shares, of which 11,544,669 shares are designated as Series C convertible preferred stock, and (iii) set forth the rights, preferences and privileges of the Series C convertible preferred stock.

Series C Convertible Preferred Stock Financing

In March 2018, the Company sold 3,590,573 shares of Series C convertible preferred stock at \$15.3317 per share for net proceeds of \$54.9 million of which \$3.0 million was sold to related party shareholders of the Company. Each share of Series C convertible preferred stock is convertible into one share of the Company's common stock.

In April 2018, the Company sold an additional 322,852 shares of Series C convertible preferred stock \$15.3317 per share for net proceeds of \$5.0 million.

**UNITY BIOTECHNOLOGY, INC.
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Related Party Recourse Notes

In April 2018, the Company's board of directors approved the forgiveness of all outstanding principal and accrued interest of \$1.6 million on a promissory note considered to be non-recourse in substance, which was issued to an executive officer of the Company. The termination of the note was effective April 4, 2018. All other related party recourse notes outstanding as of December 31, 2017 were repaid on April 4, 2018 in accordance with the terms of such note.

5,000,000 Shares

Unity Biotechnology, Inc.

Common Stock



Goldman Sachs & Co. LLC

Morgan Stanley
Mizuho Securities

Citigroup

, 2018

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 the registrant in connection with the sale of common stock being registered. All amounts are estimates except for the Securities and Exchange Commission, or SEC, registration fee, the Financial Industry Regulatory Authority, Inc., or FINRA, filing fee and The Nasdaq Global Select Market listing fee.

Item	Amount to be paid
SEC registration fee	\$ 12,886
FINRA filing fee	16,025
The Nasdaq Global Select Market Listing fee	125,000
Printing and engraving expenses	450,000
Legal fees and expenses	1,500,000
Accounting fees and expenses	800,000
Blue Sky, qualification fees and expenses	10,000
Transfer Agent fees and expenses	5,000
Miscellaneous expenses	81,089
Total	<u>\$ 3,000,000</u>

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, to be in effect immediately prior to the consummation of this offering, that will 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 will also authorize 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 will 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;

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- 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, attached as Exhibit 3.3 hereto, and our amended and restated bylaws, attached as Exhibit 3.5 hereto, will provide for the indemnification provisions described above and elsewhere herein. We have entered into separate indemnification agreements with our directors and officers which 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 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. In addition, we have purchased a policy of directors' and officers' liability insurance that insures our directors and officers against the cost of defense, settlement or payment of a judgment in some circumstances. 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.

The form of Underwriting Agreement, attached as Exhibit 1.1 hereto, provides for indemnification by the underwriters of us and our officers who sign this Registration Statement and directors for specified liabilities, including matters arising under the Securities Act.

Item 15. Recent Sales of Unregistered Securities.

The following list sets forth information as to all securities we have sold since January 1, 2015, which were not registered under the Securities Act. Share amounts have been retroactively adjusted to give effect to a reverse split of 1-for-2.95 of our common stock and preferred stock on April 20, 2018.

1. In January 2015, we issued an aggregate of 2,568,049 shares of our Series A-2 convertible preferred stock to seven accredited investors at \$0.8762 per share for aggregate proceeds to us of approximately \$2.3 million.
2. In January 2015, we issued a warrant to purchase 380,452 shares of Series A-2 convertible preferred stock at an exercise price of \$0.6579 per share to Nathaniel E. David.
3. In June 2015, we issued 6,779 shares of our common stock to The Board of Trustees of the University of Arkansas in consideration of services rendered to us under a license agreement with said stockholder.
4. In June and November 2015, we issued convertible promissory notes in the aggregate principal amount of approximately \$4.0 million to six accredited investors.
5. In January 2016 we issued 1,694 shares of our common stock to Wilson Sonsini Goodrich & Rosati, P.C. in consideration of services rendered to us.
6. In February 2016, we issued an aggregate of 4,671,430 shares of our Series A-2 convertible preferred stock to six accredited investors at \$0.8762 per share in consideration of the cancellation of outstanding debt owed to such investors.
7. In February 2016, we issued 533,335 and 133,333 shares of our common stock to Ascentage Pharma Group Corp. Ltd. and The Regents of the University of Michigan, respectively, as license fee payments under a license agreement with said stockholders. In

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October 2016, we issued 67,796 shares of our common stock to The Mayo Foundation for Education and Research as a license fee payment under a license agreement with such stockholder.

8. In February, April, May, July, August, September and October 2016, we issued convertible promissory notes in the aggregate principal amount of approximately \$16.9 million to nine accredited investors.
9. In October 2016 and March, April, May and June 2017, we issued an aggregate of 14,774,369 shares of our Series B convertible preferred stock, including (i) 11,058,701 shares of Series B convertible preferred stock issued at a per share price of \$12.1245, and (ii) 3,715,668 shares of Series B convertible preferred stock issued upon conversion of convertible promissory notes issued by us, in exchange for approximately \$17.1 million in cancellation of indebtedness, for a total amount raised (including the cancellation of indebtedness) of approximately \$151.2 million.
10. In December 2017, we issued 12,711 shares of our common stock to the University of North Carolina at Chapel Hill Foundation, Inc. in consideration of services rendered to us by an individual related to such entity.
11. In March and April 2018, we issued an aggregate of 3,913,425 shares of our Series C convertible preferred stock at a per share price of \$15.3317 for gross proceeds of approximately \$59.9 million.
12. Since December 31, 2015, we granted stock options and stock awards outside of our 2013 Equity Incentive Plan, covering an aggregate of 794,574 shares of common stock, at a weighted-average exercise price of \$3.42 per share.
13. Since December 31, 2015, we granted stock options and stock awards to employees, directors and consultants under our 2013 Equity Incentive Plan, covering an aggregate of 6,333,761 shares of common stock, at a weighted-average exercise price of \$2.67 per share. Of these, options covering an aggregate of 136,387 shares were cancelled without being exercised and 155,517 unvested shares were repurchased concurrent with employee terminations.
14. Since December 31, 2015, we issued an aggregate of 2,754,921 shares of common stock at a weighted-average exercise price of \$1.38 to employees, directors and consultants for cash consideration and promissory notes in the aggregate amount of approximately \$3.8 million upon the exercise of stock options and stock awards.

We claimed exemption from registration under the Securities Act for the sale and issuance of securities in the transactions described in paragraphs (1) through (11) by virtue of Section 4(a)(2) and/or Regulation D promulgated thereunder as transactions not involving any public offering. All of the purchasers of unregistered securities for which we relied on Section 4(a)(2) and/or Regulation D represented that they were accredited investors as defined under the Securities Act. We claimed such exemption on the basis that (a) the purchasers in each case represented that they intended to acquire the securities for investment only and not with a view to the distribution thereof and that they either received adequate information about the registrant or had access, through employment or other relationships, to such information and (b) appropriate legends were affixed to the stock certificates issued in such transactions.

We claimed exemption from registration under the Securities Act for the sales and issuances of securities in the transactions described in paragraphs (12) through (14) above under Section 4(a)(2) of the Securities Act in that such sales and issuances did not involve a public offering or under Rule 701 promulgated under the Securities Act, in that they were offered and sold either pursuant to written compensatory plans or pursuant to a written contract relating to compensation, as provided by Rule 701.

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Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits.

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Date	Number	
1.1	Form of Underwriting Agreement.				X
3.1	Amended and Restated Certificate of Incorporation, as amended, previously in effect.	S-1	4-5-18	3.1	
3.2	Amended and Restated Certificate of Incorporation, effecting a stock split on April 20, 2018.				X
3.3	Form of Amended and Restated Certificate of Incorporation, to be in effect immediately prior to the consummation of this offering.	S-1	4-5-18	3.2	
3.4	Bylaws, currently in effect.	S-1	4-5-18	3.3	
3.5	Form of Amended and Restated Bylaws, to be in effect immediately prior to the consummation of this offering.	S-1	4-5-18	3.4	
4.1	Reference is made to exhibits 3.1 through 3.4.				
4.2	Form of Common Stock Certificate.				X
4.3	Amended and Restated Investors' Rights Agreement, dated as of March 15, 2018, by and among Unity Biotechnology, Inc. and the investors party thereto.	S-1	4-5-18	4.3	
5.1	Opinion of Latham & Watkins LLP.				X
10.1(a)	Lease Agreement, dated as of May 13, 2016, by and between Unity Biotechnology, Inc. and BMR-Bayshore Boulevard L.P.	S-1	4-5-18	10.1(a)	
10.1(b)	First Amendment to Lease Agreement, dated as of May 23, 2017, by and between Unity Biotechnology, Inc. and BMR-Bayshore Boulevard L.P.	S-1	4-5-18	10.1(b)	
10.2(a)	Space License Agreement, dated as of October 20, 2016, by and between Unity Biotechnology, Inc. and BMR-Bayshore Boulevard L.P.	S-1	4-5-18	10.2(a)	
10.2(b)	First Amendment to Space License Agreement, dated as of December 5, 2016, by and between Unity Biotechnology, Inc. and BMR-Bayshore Boulevard L.P.	S-1	4-5-18	10.2(b)	
10.2(c)	Second Amendment to Space License Agreement, dated as of January 30, 2017, by and between Unity Biotechnology, Inc. and BMR-Bayshore Boulevard L.P.	S-1	4-5-18	10.2(c)	
10.3(a)#	2013 Equity Incentive Plan.	S-1	4-5-18	10.3(a)	
10.3(b)#	Form of Stock Option Agreement under 2013 Equity Incentive Plan.	S-1	4-5-18	10.3(b)	
10.4(a)#	2018 Incentive Award Plan.				X
10.4(b)#	Form of Stock Option Grant Notice and Stock Option Agreement under the 2018 Incentive Award Plan.	S-1	4-5-18	10.4(b)	

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Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Date	Number	
10.4(c)#	Form of Restricted Stock Award Grant Notice and Restricted Stock Award Agreement under the 2018 Incentive Award Plan.	S-1	4-5-18	10.4(c)	
10.4(d)#	Form of Restricted Stock Unit Award Grant Notice and Restricted Stock Unit Award Agreement under the 2018 Incentive Award Plan.	S-1	4-5-18	10.4(d)	
10.5#	2018 Employee Stock Purchase Plan.				X
10.6#	Non-Employee Director Compensation Program.	S-1	4-5-18	10.6	
10.7#	Form of Indemnification Agreement for directors and officers.	S-1	4-5-18	10.7	
10.8#	Employment Agreement, dated January 29, 2018, by and between Unity Biotechnology, Inc. and Keith R. Leonard Jr.	S-1	4-5-18	10.8	
10.9#	Employment Agreement, dated January 29, 2018, by and between Unity Biotechnology, Inc. and Nathaniel E. David.	S-1	4-5-18	10.9	
10.10#	Employment Agreement, dated January 29, 2018, by and between Unity Biotechnology, Inc. and Robert C. Goeltz II.	S-1	4-5-18	10.10	
10.11#	Employment Agreement, dated January 29, 2018, by and between Unity Biotechnology, Inc. and Jamie Dananberg.	S-1	4-5-18	10.11	
10.12#	Employment Agreement, dated January 29, 2018, by and between Unity Biotechnology, Inc. and Daniel G. Marquess.	S-1	4-5-18	10.12	
10.13#	Employment Agreement, dated January 29, 2018, by and between Unity Biotechnology, Inc. and Tamara L. Tompkins.	S-1	4-5-18	10.13	
10.14†	Compound Library and Option Agreement, dated as of February 2, 2016, by and between Ascentage Pharma Group Corp. Ltd. and Unity Biotechnology, Inc.				X
10.15†	APG1252 License Agreement, dated as of February 2, 2016, by and between Ascentage Pharma Group Corp. Ltd. and Unity Biotechnology, Inc.				X
10.16†	Research Services Agreement, dated as of February 2, 2016, by and between Ascentage Pharma Group Corp. Ltd. and Unity Biotechnology, Inc.	S-1	4-5-18	10.16	
10.17†	Amendment to APG1252 License Agreement, dated as of February 2, 2016, by and between Ascentage Pharma Group Corp. Ltd. and	S-1	4-5-18	10.17	
10.18†	Amendment to Compound Library and Option Agreement, dated as of February 2, 2016, by and between Ascentage Pharma Group Corp. Ltd. and Unity Biotechnology, Inc.	S-1	4-5-18	10.18	

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Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Date	Number	
10.19(a)†	Exclusive License Agreement, dated as of June 28, 2013, by and between the Mayo Foundation for Medical Education and Research and Unity Biotechnology, Inc.				X
10.19(b)†	Amendment No. 1 to Exclusive License Agreement, dated as of September 10, 2014, by and between the Mayo Foundation for Medical Education and Research and Unity Biotechnology, Inc.				X
10.19(c)	Amendment No. 2 to Exclusive License Agreement, dated as of November 17, 2014, by and between the Mayo Foundation for Medical Education and Research and Unity Biotechnology, Inc.				X
10.19(d)†	Amendment No. 3 to Exclusive License Agreement, dated as of May 5, 2015, by and between the Mayo Foundation for Medical Education and Research and Unity Biotechnology, Inc.				X
10.19(e)†	Amendment No. 4 to Exclusive License Agreement, dated as of September 15, 2016, by and between the Mayo Foundation for Medical Education and Research and Unity Biotechnology, Inc.				X
10.19(f)†	Addendum to Amendment No. 4 to Exclusive License Agreement, dated as of September 15, 2016, by and between the Mayo Foundation for Medical Education and Research and Unity Biotechnology, Inc.				X
10.19(g)†	Amendment No. 5 to Exclusive License Agreement, dated as of October 17, 2016, by and between the Mayo Foundation for Medical Education and Research and Unity Biotechnology, Inc.				X
10.20†	Amended and Restated License Agreement, dated as of January 27, 2017, by and between the Buck Institute for Research on Aging and Unity Biotechnology, Inc.				X
10.21†	License Agreement, dated as of November 3, 2016, by and between The Johns Hopkins University and Unity Biotechnology, Inc.				X
23.1	Consent of Independent Registered Public Accounting Firm.				X
23.2	Consent of Latham & Watkins LLP (included in Exhibit 5.1).				X
24.1	Power of Attorney. Reference is made to the signature page to the Registration Statement.	S-1	4-5-18	24.1	

† Portions of this exhibit (indicated by asterisks) have been omitted pursuant to a request for confidential treatment and this exhibit has been filed separately with the SEC.

Indicates management contract or compensatory plan.

(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 financial statements or notes thereto.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Amendment No. 1 to the Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in Brisbane, California on April 23, 2018.

Unity Biotechnology, Inc.

By: /s/ Keith R. Leonard Jr.
Keith R. Leonard Jr.
Chief Executive Officer

Pursuant to the requirements of the Securities Act, this Amendment No. 1 to the Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Keith R. Leonard Jr.</u> Keith R. Leonard Jr.	Chairman, Chief Executive Officer and Director (<i>Principal Executive Officer</i>)	April 23, 2018
<u>/s/ Robert C. Goeltz II</u> Robert C. Goeltz II	Chief Financial Officer (<i>Principal Financial and Accounting Officer</i>)	April 23, 2018
<u>*</u> Paul L. Berns	Director	April 23, 2018
<u>*</u> Kristina M. Burow	Director	April 23, 2018
<u>*</u> Graham K. Cooper	Director	April 23, 2018
<u>*</u> Nathaniel E. David	President and Director	April 23, 2018
<u>*</u> David L. Lacey	Director	April 23, 2018
<u>*</u> Robert T. Nelsen	Director	April 23, 2018
<u>*</u> Camille D. Samuels	Director	April 23, 2018

*By: /s/ Keith R. Leonard Jr.
Keith R. Leonard Jr.
Attorney-in-Fact

Unity Biotechnology, Inc.

Common Stock, par value \$0.0001 per share

Underwriting Agreement

[●], 2018

Goldman Sachs & Co. LLC,
Morgan Stanley & Co. LLC, and
Citigroup Global Markets Inc.
As representatives (the "Representatives") of the several Underwriters
named in Schedule I hereto,

c/o Goldman Sachs & Co. LLC
200 West Street,
New York, New York 10282-2198

c/o Morgan Stanley & Co. LLC
1585 Broadway
New York, New York 10036

c/o Citigroup Global Markets Inc.
388 Greenwich Street
New York, New York 10013

Ladies and Gentlemen:

Unity Biotechnology, Inc., a Delaware corporation (the "Company"), proposes, subject to the terms and conditions stated in this agreement (this "Agreement"), to issue and sell to the Underwriters named in Schedule I hereto (the "Underwriters") an aggregate of [●] shares (the "Firm Shares") and, at the election of the Underwriters, up to [●] additional shares (the "Optional Shares") of the Common Stock, par value \$0.0001 per share ("Stock") of the Company. The Firm Shares and the Optional Shares that the Underwriters elect to purchase pursuant to Section 2 hereof being collectively called the "Shares."

Morgan Stanley & Co. LLC ("Morgan Stanley") has agreed to reserve a portion of the Shares to be purchased by it under this Agreement for sale to the Company's directors, officers, employees and business associates and other parties related to the Company (collectively, "Participants"), as set forth in the Prospectus (as defined in Section 1(a) hereof) under the heading "Underwriting" (the "Directed Share Program"). The Shares to be sold by Morgan Stanley and its affiliates pursuant to the Directed Share Program, at the direction of the Company, are referred to hereinafter as the "Directed Shares". Any Directed Shares not orally confirmed for purchase by any Participant by the end of the business day on which this Agreement is executed will be offered to the public by the Underwriters as set forth in the Prospectus.

1. The Company represents and warrants to, and agrees with, each of the Underwriters that:

(a) A registration statement on Form S-1 (File No. 333-224163) (the “Initial Registration Statement”) in respect of the Shares has been filed with the Securities and Exchange Commission (the “Commission”); the Initial Registration Statement and any post-effective amendment thereto, each in the form heretofore delivered to you, have been declared effective by the Commission in such form; other than a registration statement, if any, increasing the size of the offering (a “Rule 462(b) Registration Statement”), filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended (the “Act”), which became effective upon filing, no other document with respect to the Initial Registration Statement has been filed with the Commission; and no stop order suspending the effectiveness of the Initial Registration Statement, any post-effective amendment thereto or the Rule 462(b) Registration Statement, if any, has been issued and no proceeding for that purpose has been initiated or threatened by the Commission (any preliminary prospectus included in the Initial Registration Statement or filed with the Commission pursuant to Rule 424(a) of the rules and regulations of the Commission under the Act is hereinafter called a “Preliminary Prospectus”; the various parts of the Initial Registration Statement and the Rule 462(b) Registration Statement, if any, including all exhibits thereto and including the information contained in the form of final prospectus filed with the Commission pursuant to Rule 424(b) under the Act in accordance with Section 5(a) hereof and deemed by virtue of Rule 430A under the Act to be part of the Initial Registration Statement at the time it was declared effective, each as amended at the time such part of the Initial Registration Statement became effective or such part of the Rule 462(b) Registration Statement, if any, became or hereafter becomes effective, are hereinafter collectively called the “Registration Statement”; the Preliminary Prospectus relating to the Shares that was included in the Registration Statement immediately prior to the Applicable Time (as defined in Section 1(c) hereof) is hereinafter called the “Pricing Prospectus”; and such final prospectus, in the form first filed pursuant to Rule 424(b) under the Act, is hereinafter called the “Prospectus”; any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the Act is hereinafter called a “Section 5(d) Communication”; and any Section 5(d) Communication that is a written communication within the meaning of Rule 405 under the Act is hereinafter called a “Section 5(d) Writing”; and any “issuer free writing prospectus” as defined in Rule 433 under the Act relating to the Shares is hereinafter called an “Issuer Free Writing Prospectus”);

(b) (A) No order preventing or suspending the use of any Preliminary Prospectus or any Issuer Free Writing Prospectus has been issued by the Commission, and (B) each Preliminary Prospectus, at the time of filing thereof, conformed in all material respects to the requirements of the Act and the rules and regulations of the Commission thereunder, and did not contain 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, in the light of the circumstances under which they were made, not misleading; *provided, however*, that this representation and warranty shall not apply to any statements or omissions made in reliance upon and in conformity with the Underwriter Information (as defined in Section 9(b) of this Agreement);

(c) For the purposes of this Agreement, the “Applicable Time” is [●][am/pm] (Eastern time) on the date of this Agreement. The Pricing Prospectus, as supplemented by the information listed on Schedule II(c) hereto, taken together (collectively, the “Pricing Disclosure Package”), as of the Applicable Time, did not, and as of each Time of Delivery (as defined in Section 4(a) of this Agreement) will not, include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; and each Issuer Free Writing Prospectus and each Section 5(d) Writing does not conflict with the information contained in the Registration Statement, the Pricing Prospectus or the Prospectus and each Issuer Free Writing Prospectus and each Section 5(d) Writing, as supplemented by and taken together with the Pricing Disclosure Package, as of the Applicable Time, did not, and as of each Time of Delivery will not, include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided, however, that this representation and warranty shall not apply to statements or omissions made in reliance upon and in conformity with the Underwriter Information;

(d) The Registration Statement conforms, and the Prospectus and any further amendments or supplements to the Registration Statement and the Prospectus will conform, in all material respects to the requirements of the Act and the rules and regulations of the Commission thereunder and do not and will not, as of the applicable effective date as to each part of the Registration Statement, as of the applicable filing date as to the Prospectus and any amendment or supplement thereto, and as of each Time of Delivery, contain 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; provided, however, that this representation and warranty shall not apply to any statements or omissions made in reliance upon and in conformity with the Underwriter Information;

(e) The Company has not, since the date of the latest audited financial statements included in the Pricing Prospectus, (i) sustained any material loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree or (ii) entered into any transaction or agreement (whether or not in the ordinary course of business) that is material to the Company or incurred any liability or obligation, direct or contingent, that is material to the Company in each case otherwise than as set forth or contemplated in the Pricing Prospectus; and, since the respective dates as of which information is given in the Registration Statement and the Pricing Prospectus, there has not been (x) any change in the capital stock (other than as a result of (i) the exercise, if any, of stock options or the award, if any, of stock options or restricted stock in the ordinary course of business pursuant to the Company’s equity plans that are described in the Pricing Prospectus and the Prospectus or (ii) the issuance, if any, of stock upon conversion of Company securities as described in the Pricing Prospectus and the Prospectus) or long-term debt of the Company or (y) any Material Adverse Effect (as

defined below); as used in this Agreement, “Material Adverse Effect” shall mean any material adverse change or effect, or any development involving a prospective material adverse change or effect, in or affecting (i) the business, prospects, properties, general affairs, management, financial position, stockholders’ equity or results of operations of the Company, except as set forth or contemplated in the Pricing Prospectus, or (ii) the ability of the Company to perform its obligations under this Agreement, including the issuance and sale of the Shares;

(f) The Company does not own any real property. The Company has good and marketable title to all personal property owned by it, in each case free and clear of all liens, encumbrances and defects except such as are described in the Pricing Prospectus or such as do not materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company; and any real property and buildings held under lease by the Company are, to the Company’s knowledge, held by the Company under valid, subsisting and enforceable leases with such exceptions as are not material and do not materially interfere with the use made and proposed to be made of such property and buildings by the Company;

(g) (i) Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company owns or possesses sufficient rights to use all patents, patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, domain names and other source indicators, copyrights and copyrightable works, know-how, trade secrets, systems, procedures, proprietary or confidential information (collectively, “Intellectual Property”) material to the conduct of its business as presently conducted or currently proposed to be conducted in the Registration Statement, the Pricing Disclosure Package and the Prospectus. Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not, to its knowledge, materially infringed, misappropriated or otherwise violated any enforceable Intellectual Property of any person, and to the knowledge of the Company, neither the manufacture of, nor the use or sale of, any of the product candidates described in the Registration Statement, the Pricing Disclosure Package and the Prospectus would infringe, misappropriate or otherwise violate the known, valid and enforceable Intellectual Property of any person. Except as would not, if determined adversely to the Company, individually or in the aggregate, have a Material Adverse Effect, or except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim (i) challenging the Company’s rights in or to, or alleging the violation of any of the terms of, any of its Intellectual Property; (ii) alleging that the Company has infringed, misappropriated or otherwise violated or conflicted with any Intellectual Property of any third party; or (iii) challenging the validity, scope or enforceability of any Intellectual Property owned by or exclusively or co-exclusively licensed to the Company. Except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, (w) all material Intellectual Property owned or licensed by the Company is, to the knowledge of the Company, is valid and enforceable, solely owned, licensed or co-licensed by the Company, owned free and clear of all liens, encumbrances, defects and other restrictions, and (x) to the knowledge of the Company, no third party has infringed, misappropriated or otherwise violated any Intellectual Property owned by or

exclusively or co-exclusively licensed to the Company. The Company has at all times taken reasonable steps to maintain the confidentiality of all material Intellectual Property the value of which to the Company is contingent upon maintaining the confidentiality thereof. All parties involved in the development of material Intellectual Property for the Company have signed confidentiality and invention assignment agreements with the Company, pursuant to which the Company either (y) has obtained ownership of and is the exclusive owner of such material Intellectual Property, or (z) has obtained a valid right to exploit such material Intellectual Property, sufficient for the conduct of its business as currently conducted and as proposed in the Registration Statement, the Pricing Disclosure Package and the Prospectus to be conducted;

(h) The Company possesses all licenses, sub-licenses, certificates, permits and other authorizations issued by, and have made all declarations and filings with, the appropriate federal, state, local or foreign governmental or regulatory authorities that are necessary for the ownership or lease of its property or the conduct of its businesses as currently conducted and described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, including, without limitation, from the U.S. Food and Drug Administration (“FDA”) except where the failure to possess or make the same would not, individually or in the aggregate, have a Material Adverse Effect; and except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not received notice of any revocation or modification of any material license, sub-license, certificate, permit or authorization or has any reason to believe that any material license, sub-license, certificate, permit or authorization will not be renewed in the ordinary course;

(i) The Company has operated and currently is in compliance with all applicable rules, regulations and policies of the FDA, except where the failure to so operate or be in compliance would not reasonably be expected to have a Material Adverse Effect;

(j) The preclinical and clinical trials conducted by the Company and, to the knowledge of the Company, the preclinical and clinical trials conducted on behalf of the Company or in which the Company has participated, were, and if still pending are, being conducted in accordance with experimental protocols, procedures and controls pursuant to accepted professional scientific standards and all applicable rules, regulations and policies, including those of the FDA and comparable regulatory agencies outside of the United States, to which the Company is subject and current Good Clinical Practices and Good Laboratory Practices, except where the failure to be so conducted would not reasonably be expected to have a Material Adverse Effect; the descriptions of the results of such trials contained in the Registration Statement, the Pricing Prospectus and the Prospectus are, to the Company’s knowledge, accurate and complete in all material respects and fairly present the data derived from such studies and trials; except to the extent disclosed in the Registration Statement, the Pricing Prospectus and the Prospectus, the Company is not aware of any studies or trials, the results of which the Company believes reasonably call into question the study, test, or trial results described or referred to in the Registration Statement, the Pricing Prospectus and the Prospectus when viewed in the context in which such results are described and the clinical state of development; and, except to the extent disclosed in the Registration Statement, the

Pricing Prospectus or the Prospectus, the Company has not received any notices or correspondence from the FDA or any other comparable federal, state, local or foreign governmental or regulatory authority requiring the termination or suspension of any preclinical or clinical trials conducted by or on behalf of the Company;

(k) The Company has been (i) duly organized and is validly existing and in good standing under the laws of its jurisdiction of organization, with power and authority (corporate and other) to own and/or lease its properties and conduct its business as described in the Pricing Prospectus, and (ii) duly qualified as a foreign corporation for the transaction of business and is in good standing under the laws of each other jurisdiction in which it owns or leases properties or conducts any business so as to require such qualification, except, in the case of this clause (ii), where the failure to be so qualified or in good standing would not, individually or in the aggregate, have a Material Adverse Effect;

(l) The Company has an authorized capitalization as set forth in the Pricing Prospectus and all of the issued shares of capital stock of the Company have been duly and validly authorized and issued and are fully paid and non-assessable and conform to the description of the Stock contained in the Pricing Disclosure Package and Prospectus;

(m) The unissued Shares to be issued and sold by the Company to the Underwriters hereunder have been duly and validly authorized and, when issued and delivered against payment therefor as provided herein, will be duly and validly issued and fully paid and non-assessable and will conform to the description of the Stock contained in the Pricing Disclosure Package and the Prospectus; and the issuance of the Shares is not subject to any preemptive or similar rights that have not been complied with or otherwise waived;

(n) The issue and sale of the Shares and the compliance by the Company with this Agreement and the consummation of the transactions contemplated in this Agreement and the Pricing Prospectus will not conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, (A) any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company is a party or by which the Company is bound or to which any of the property or assets of the Company is subject, (B) the certificate of incorporation or by-laws (or other applicable organizational document) of the Company, or (C) any statute or any judgment, order, rule or regulation of any court or governmental agency or body having jurisdiction over the Company or any of their properties, except, in the case of clauses (A) or (C), for such defaults, breaches, or violations that would not, individually or in the aggregate, have a Material Adverse Effect; and no consent, approval, authorization, order, registration or qualification of or with any such court or governmental agency or body is required for the issue and sale of the Shares or the consummation by the Company of the transactions contemplated by this Agreement, except such as have been obtained under the Act, the approval by the Financial Industry Regulatory Authority ("FINRA") of the underwriting terms and arrangements and such consents, approvals, authorizations, registrations or qualifications as may be required under state securities or Blue Sky laws in connection with the purchase and distribution of the Shares by the Underwriters;

(o) The Company is not (i) in violation of its certificate of incorporation or by-laws (or other applicable organizational document), (ii) in violation of any statute or any judgment, order, rule or regulation of any court or governmental agency or body having jurisdiction over the Company or any of its properties, or (iii) in default in the performance or observance of any obligation, agreement, covenant or condition contained in any indenture, mortgage, deed of trust, loan agreement, lease or other agreement or instrument to which it is a party or by which it or any of its properties may be bound, except, in the case of the foregoing clauses (ii) and (iii), for such defaults as would not, individually or in the aggregate, have a Material Adverse Effect;

(p) The statements set forth in the Pricing Prospectus and Prospectus under the caption “Description of Capital Stock”, insofar as they purport to constitute a summary of the terms of the Stock, under the caption “Material U.S. Federal Income Tax Consequences to Non-U.S. Holders”, insofar as they purport to describe the provisions of the laws and documents referred to therein, are accurate, complete and fair in all material respects;

(q) Other than as set forth in the Pricing Prospectus, there are no legal or governmental proceedings pending to which the Company is a party or of which any property of the Company is the subject which, if determined adversely to the Company (or such officer or director), would individually or in the aggregate have a Material Adverse Effect; and, to the Company’s knowledge, no such proceedings are threatened or contemplated by governmental authorities or others;

(r) The Company is not and, after giving effect to the offering and sale of the Shares and the application of the proceeds thereof, will not be an “investment company”, as such term is defined in the Investment Company Act of 1940, as amended (the “Investment Company Act”);

(s) At the time of filing the Initial Registration Statement and any post-effective amendment thereto, at the earliest time thereafter that the Company or any offering participant made a bona fide offer (within the meaning of Rule 164(h)(2) under the Act) of the Shares, and at the date hereof, the Company was not and is not an “ineligible issuer,” as defined under Rule 405 under the Act;

(t) Ernst & Young LLP, who have certified certain financial statements of the Company, is an independent registered public accounting firm as required by the Act and the rules and regulations of the Commission thereunder;

(u) The Company maintains a system of internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Securities and Exchange Act of 1934, as amended (the “Exchange Act”)) that (i) complies with the requirements of the Exchange Act applicable to the Company, (ii) has been designed by the Company’s principal executive officer and principal financial officer, or under their supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and (iii) is sufficient to provide reasonable assurance that (A) transactions are executed in accordance with management’s general or specific

authorization, (B) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain accountability for assets, (C) access to assets is permitted only in accordance with management's general or specific authorization and (D) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company is not aware of any material weaknesses in its internal control over financial reporting (it being understood that this subsection shall not require the Company to comply with Section 404 of the Sarbanes Oxley Act of 2002 as of an earlier date than it would otherwise be required to so comply under applicable law);

(v) Since the date of the latest audited financial statements included in the Pricing Prospectus, there has been no change in the Company's internal control over financial reporting that has materially and adversely affected, or is reasonably likely to materially and adversely affect, the Company's internal control over financial reporting;

(w) The Company maintains disclosure controls and procedures (as such term is defined in Rule 13a-15(e) under the Exchange Act) that comply with the requirements of the Exchange Act as applicable to the Company; such disclosure controls and procedures have been designed to ensure that material information relating to the Company is made known to the Company's principal executive officer and principal financial officer by others within those entities; and such disclosure controls and procedures are effective;

(x) This Agreement has been duly authorized, executed and delivered by the Company;

(y) (A) None of the Company or any of its directors or officers, nor, to the knowledge of the Company, any agent, employee, affiliate or other person associated with or acting on behalf of the Company (i) has made, offered, promised or authorized any unlawful contribution, gift, entertainment or other unlawful expense; (ii) has made, offered, promised or authorized any direct or indirect unlawful payment; or (iii) has violated or is in violation of any provision of the Foreign Corrupt Practices Act of 1977, the Bribery Act 2010 of the United Kingdom or any other applicable anti-bribery or anti-corruption law; (B) the Company, its subsidiaries and its affiliates have conducted their businesses in compliance with applicable anti-corruption laws and have instituted and maintain policies and procedures designed to promote and achieve compliance with such laws and with the representation and warranty contained herein; and (C) neither the Company nor its subsidiaries will use, directly or indirectly, the proceeds of the offering and sale of the Shares in furtherance of an offer, payment, promise to pay or authorization of the payment or giving of money, or anything else of value, to any person in violation of any applicable anti-corruption laws;

(z) The operations of the Company are and have been conducted at all times in compliance with the requirements of applicable anti-money laundering laws, including, but not limited to, the Bank Secrecy Act of 1970, as amended by the USA PATRIOT ACT of 2001, and the rules and regulations promulgated thereunder, and the anti-money laundering laws of the various jurisdictions in which the Company conducts business

(collectively, the “Money Laundering Laws”) and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened;

(aa) (A) None of the Company or any of its directors or officers, nor, to the knowledge of the Company, any agent, employee or affiliate of the Company is, or is owned or controlled by one or more individual or entity that is, (i) currently the subject or the target of any sanctions administered or enforced by the U.S. Government, including, without limitation, the Office of Foreign Assets Control of the U.S. Department of the Treasury (“OFAC”), or the U.S. Department of State and including, without limitation, the designation as a “specially designated national” or “blocked person,” the European Union, Her Majesty’s Treasury, the United Nations Security Council, or other relevant sanctions authority (collectively, “Sanctions”), nor (ii) located, organized or resident in a country or territory that is the subject of Sanctions (including, without limitation, Crimea, Cuba, Iran, North Korea and Syria); (B) the Company will not directly or indirectly use the proceeds of the offering of the Shares hereunder, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity (i) to fund or facilitate any activities of or business with any person, or in any country or territory, that, at the time of such funding, is the subject or the target of Sanctions or (ii) in any other manner that will result in a violation by any person (including any person participating in the transaction, whether as underwriter, advisor, investor or otherwise) of Sanctions; and (C) for the past five years, the Company has not knowingly engaged in and are not now knowingly engaged in any dealings or transactions with any person, or in any country or territory, that at the time of the dealing or transaction is or was the subject of Sanctions.

(bb) The financial statements included in the Registration Statement, the Pricing Prospectus and the Prospectus, together with the related schedules and notes, present fairly in all material respects the financial position of the Company at the dates indicated and the statement of operations, stockholders’ equity and cash flows of the Company for the periods specified; except as otherwise stated in the Registration Statement, the Pricing Prospectus and the Prospectus, such financial statements have been prepared in conformity with U.S. generally accepted accounting principles (“GAAP”) applied on a consistent basis throughout the periods involved. The supporting schedules, if any, included in the Registration Statement, the Pricing Prospectus and the Prospectus present fairly in all material respects the information required to be stated therein. The selected financial data and the summary financial information included in the Registration Statement, the Pricing Prospectus and the Prospectus present fairly in all material respects the information shown therein and have been compiled on a basis consistent with that of the audited financial statements included therein. Except as included therein, no historical or pro forma financial statements or supporting schedules are required to be included in the Registration Statement, the Pricing Prospectus or the Prospectus under the Act or the rules and regulations promulgated thereunder;

(cc) From the time of initial confidential submission of a registration statement relating to the Shares with the Commission (or, if earlier, the first date on which a Section 5(d) Communication was made) through the date hereof, the Company has been and is an “emerging growth company” as defined in Section 2(a)(19) of the Act (an “Emerging Growth Company”);

(dd) The Company has filed all federal, state and local tax returns required to be filed through the date of this Agreement or have requested extensions thereof (except where the failure to file would not, individually or in the aggregate, have a Material Adverse Effect) and have paid all material taxes required to be paid thereon (except for cases in which the failure to pay would not have a material adverse effect, or, except as currently being contested in good faith and for which reserves required by U.S. GAAP have been created in the financial statements of the Company), and no tax deficiency has been determined adversely to the Company which has had (nor does the Company have any notice or knowledge of any tax deficiency which could reasonably be expected to be determined adversely to the Company and which could reasonably be expected to have) a Material Adverse Effect;

(ee) The Company has all requisite rights, power and authority to execute and deliver this Agreement and to perform its obligations hereunder; and all action required to be taken for the due and proper authorization, execution and delivery by it of this Agreement and the consummation by it of the transactions contemplated hereby has been or will be duly and validly taken;

(ff) (i) The Company (x) is in material compliance with all, and has not violated any, applicable material federal, state or local laws, rules, regulations, requirements, decisions, judgments, decrees and orders relating to pollution, hazardous or toxic substances, wastes, pollutants, contaminants or the protection of human health or safety, the environment or natural resources (collectively, "Environmental Laws"); (y) has received and is in material compliance with all, and has not violated any, material permits, licenses, certificates or other authorizations or approvals required of it under any Environmental Laws to conduct its business; and (z) has not received notice of any actual or potential liability of the Company, or obligation of the Company under or relating to, or any actual or potential violation of, any Environmental Laws by the Company, including for the investigation or remediation of any disposal or release of hazardous or toxic substances or wastes, pollutants or contaminants, and have no knowledge of any event or condition that would reasonably be expected to result in any such notice, and (ii) there are no costs or liabilities associated with Environmental Laws of or relating to the Company, except in the case of each of (i) and (ii) above, for any such matter as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; and (iii) except as described in each of the Pricing Disclosure Package and the Prospectus, (x) there is no proceeding that is pending, or that is known by the Company to be contemplated, against the Company under any Environmental Laws in which a governmental entity is also a party, other than such proceeding regarding which the Company reasonably believes no monetary sanctions of \$100,000 or more will be imposed, and (y) the Company is not aware of any facts regarding compliance with Environmental Laws, or liabilities or other obligations under Environmental Laws or concerning hazardous or toxic substances or wastes, pollutants or contaminants, that individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect;

(gg) No material labor disturbance by or dispute with employees of the Company exists or, to the knowledge of the Company, is contemplated or threatened, and the Company is not aware of any existing or imminent labor disturbance by, or dispute with, the employees of any of its principal suppliers, contractors or customers, except as would not have a Material Adverse Effect. The Company has not received any notice of cancellation or termination with respect to any collective bargaining agreement material to the Company;

(hh) Except as described in or expressly contemplated by the Registration Statement, the Pricing Disclosure Package and the Prospectus, there are no contracts, agreements or understandings between the Company and any person granting such person the right to require the Company to register any securities for sale under the Act by reason of the filing of the Registration Statement with the Commission or the issuance and sale of the Shares, except such rights that have been waived;

(ii) The Company has not and, to its knowledge, no one acting on its behalf has, taken, directly or indirectly, without giving effect to activities by the Underwriters, any action designed to or that would reasonably be expected to cause or result in any stabilization or manipulation of the price of the Shares;

(jj) Except as described in or expressly contemplated by the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has insurance covering its property, operations, personnel and businesses, including clinical trial insurance and business interruption insurance, which insurance is in amounts and insures against such losses and risks as are generally maintained by similarly situated companies and which the Company believes are reasonably adequate to protect the Company and its business; and the Company has not (i) received written notice from any insurer or agent of such insurer that capital improvements or other expenditures are required or necessary to be made in order to continue such insurance or (ii) any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage at reasonable cost from similar insurers as may be necessary to continue its business.

(kk) The Company has no subsidiaries.

(ll) The Registration Statement, the Pricing Disclosure Package, the Prospectus and any preliminary prospectus comply, and any amendments or supplements thereto will comply, with any applicable laws or regulations of foreign jurisdictions in which the Prospectus, the Pricing Disclosure Package or any preliminary prospectus, as amended or supplemented, if applicable, are distributed in connection with the Directed Share Program.

(mm) No consent, approval, authorization or order of, or qualification with, any governmental body or agency, other than those obtained, is required in connection with the offering of the Directed Shares in any jurisdiction where the Directed Shares are being offered.

(nn) The Company has not offered, or caused Morgan Stanley or any Morgan Stanley Entity as defined in Section 10 to offer, Shares to any person pursuant to the Directed Share Program with the specific intent to unlawfully influence (i) a customer or supplier of the Company to alter the customer's or supplier's level or type of business with the Company, or (ii) a trade journalist or publication to write or publish favorable information about the Company or its products.

2. Subject to the terms and conditions herein set forth, (a) the Company agrees to issue and sell to each of the Underwriters, and each of the Underwriters agrees, severally and not jointly, to purchase from the Company, at a purchase price per share of \$[●], the number of Firm Shares set forth opposite the name of such Underwriter in Schedule I hereto and (b) in the event and to the extent that the Underwriters shall exercise the election to purchase Optional Shares as provided below, the Company agrees to issue and sell to each of the Underwriters, and each of the Underwriters agrees, severally and not jointly, to purchase from the Company, at the purchase price per share set forth in clause (a) of this Section 2 (provided that the purchase price per Optional Share shall be reduced by an amount per share equal to any dividends or distributions declared by the Company and payable on the Firm Shares but not payable on the Optional Shares), that portion of the number of Optional Shares as to which such election shall have been exercised (to be adjusted by you so as to eliminate fractional shares) determined by multiplying such number of Optional Shares by a fraction, the numerator of which is the maximum number of Optional Shares which such Underwriter is entitled to purchase as set forth opposite the name of such Underwriter in Schedule I hereto and the denominator of which is the maximum number of Optional Shares that all of the Underwriters are entitled to purchase hereunder.

The Company hereby grants to the Underwriters the right to purchase at their election up to [●] Optional Shares, at the purchase price per share set forth in the paragraph above, for the sole purpose of covering sales of shares in excess of the number of Firm Shares, provided that the purchase price per Optional Share shall be reduced by an amount per share equal to any dividends or distributions declared by the Company and payable on the Firm Shares but not payable on the Optional Shares. Any such election to purchase Optional Shares may be exercised only by written notice from you to the Company, given within a period of 30 calendar days after the date of this Agreement, setting forth the aggregate number of Optional Shares to be purchased and the date on which such Optional Shares are to be delivered, as determined by you but in no event earlier than the First Time of Delivery (as defined in Section 4 hereof) or, unless you and the Company otherwise agree in writing, earlier than two or later than ten business days after the date of such notice.

3. Upon the authorization by you of the release of the Firm Shares, the several Underwriters propose to offer the Firm Shares for sale upon the terms and conditions set forth in the Pricing Prospectus and the Prospectus.

4. (a) The Shares to be purchased by each Underwriter hereunder, book-entry form, and in such authorized denominations and registered in such names as the Representatives may request upon at least forty-eight hours' prior notice to the Company shall be delivered by or on behalf of the Company to the Representatives, through the

facilities of the Depository Trust Company (“DTC”), for the account of such Underwriter, against payment by or on behalf of such Underwriter of the purchase price therefor by wire transfer of Federal (same-day) funds to the account specified by the Company to the Representatives at least forty-eight hours in advance. The time and date of such delivery and payment shall be, with respect to the Firm Shares, 9:30 a.m., New York City time, on [●], 2018 or such other time and date as the Representatives and the Company may agree upon in writing, and, with respect to the Optional Shares, 9:30 a.m., New York time, on the date specified by the Representatives in the written notice given by the Representatives of the Underwriters’ election to purchase such Optional Shares, or such other time and date as the Representatives and the Company may agree upon in writing. Such time and date for delivery of the Firm Shares is herein called the “First Time of Delivery”, such time and date for delivery of the Optional Shares, if not the First Time of Delivery, is herein called the “Second Time of Delivery”, and each such time and date for delivery is herein called a “Time of Delivery”.

(b) The documents to be delivered at each Time of Delivery by or on behalf of the parties hereto pursuant to Section 8 hereof, including the cross receipt for the Shares and any additional documents requested by the Underwriters pursuant to Section 8(k) hereof, will be delivered at the offices of Davis Polk & Wardwell LLP, 1600 El Camino Real, Menlo Park, CA 94025 (the “Closing Location”), and the Shares will be delivered, all at such Time of Delivery. A meeting will be held at the Closing Location at [●] p.m., New York City time, on the New York Business Day next preceding such Time of Delivery, at which meeting the final drafts of the documents to be delivered pursuant to the preceding sentence will be available for review by the parties hereto. For the purposes of this Section 4, “New York Business Day” shall mean each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in New York City are generally authorized or obligated by law or executive order to close.

5. The Company agrees with each of the Underwriters:

(a) To prepare the Prospectus in a form approved by you and to file such Prospectus pursuant to Rule 424(b) under the Act not later than the Commission’s close of business on the second business day following the execution and delivery of this Agreement, or, if applicable, such earlier time as may be required by Rule 430A(a)(3) under the Act; to make no further amendment or any supplement to the Registration Statement or the Prospectus prior to the last Time of Delivery which shall be disapproved by you promptly after reasonable notice thereof; to advise you, promptly after it receives notice thereof, of the time when any amendment to the Registration Statement has been filed or becomes effective or any amendment or supplement to the Prospectus has been filed and to furnish you with copies thereof; to file promptly all material required to be filed by the Company with the Commission pursuant to Rule 433(d) under the Act; to advise you, promptly after it receives notice thereof, of the issuance by the Commission of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus or other prospectus in respect of the Shares, of the suspension of the qualification of the Shares for offering or sale in any jurisdiction, of the initiation or threatening of any proceeding for any such purpose, or of any request by the Commission for the amending or supplementing of the Registration Statement or the Prospectus or for additional information; and, in the event of the issuance of any stop

order or of any order preventing or suspending the use of any Preliminary Prospectus or other prospectus or suspending any such qualification, to promptly use its best efforts to obtain the withdrawal of such order;

(b) Promptly from time to time to take such action as you may reasonably request to qualify the Shares for offering and sale under the securities laws of such jurisdictions as you may request and to comply with such laws so as to permit the continuance of sales and dealings therein in such jurisdictions for as long as may be necessary to complete the distribution of the Shares, provided that in connection therewith the Company shall not be required to qualify as a foreign corporation or to file a general consent to service of process in any jurisdiction;

(c) Prior to 10:00 a.m., New York City time, on the New York Business Day next succeeding the date of this Agreement (or such other time as may be agreed to by the Representatives and the Company) and from time to time, to furnish the Underwriters with written and electronic copies of the Prospectus in New York City in such quantities as you may reasonably request, and, if the delivery of a prospectus (or in lieu thereof, the notice referred to in Rule 173(a) under the Act) is required at any time prior to the expiration of nine months after the time of issue of the Prospectus in connection with the offering or sale of the Shares and if at such time any event shall have occurred as a result of which the Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made when such Prospectus (or in lieu thereof, the notice referred to in Rule 173(a) under the Act) is delivered, not misleading, or, if for any other reason it shall be necessary during such same period to amend or supplement the Prospectus in order to comply with the Act, to notify you and upon your request to prepare and furnish without charge to each Underwriter and to any dealer in securities as many written and electronic copies as you may from time to time reasonably request of an amended Prospectus or a supplement to the Prospectus which will correct such statement or omission or effect such compliance; and in case any Underwriter is required to deliver a prospectus (or in lieu thereof, the notice referred to in Rule 173(a) under the Act) in connection with sales of any of the Shares at any time nine months or more after the time of issue of the Prospectus, upon your request but at the expense of such Underwriter, to prepare and deliver to such Underwriter as many written and electronic copies as you may request of an amended or supplemented Prospectus complying with Section 10(a)(3) of the Act;

(d) To make generally available to its securityholders as soon as practicable (which may be satisfied by filing with the Commission's Electronic Data Gathering Analysis and Retrieval System ("EDGAR")), but in any event not later than sixteen months after the effective date of the Registration Statement (as defined in Rule 158(c) under the Act), an earnings statement of the Company (which need not be audited) complying with Section 11(a) of the Act and the rules and regulations of the Commission thereunder (including, at the option of the Company, Rule 158);

(e) (1) During the period beginning from the date hereof and continuing to and including the date 180 days after the date of the Prospectus (the "Lock-Up Period"), not to (i) offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale

or otherwise transfer or dispose of, directly or indirectly, or file with or confidentially submit to the Commission a registration statement under the Act relating to, any securities of the Company that are substantially similar to the Shares, including but not limited to any options or warrants to purchase shares of Stock or any securities that are convertible into or exchangeable for, or that represent the right to receive, Stock or any such substantially similar securities, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing or (ii) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Stock or any such other securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Stock or such other securities, in cash or otherwise (other than (1) the Shares to be sold hereunder, (2) Common Stock (or options to purchase Common Stock or other equity awards) issued pursuant to employee stock option plans or Common Stock issued upon the conversion or exchange of convertible or exchangeable securities outstanding as of the date of this Agreement and described in the Registration Statement and the Prospectus (whether such exercise is for cash or “cashless”), (3) any Common Stock issued upon the conversion of convertible preferred stock outstanding on the date of this Agreement in connection with the offering contemplated by this Agreement, (4) the filing by the Company of any registration statement on Form S-8 or a successor form thereto relating to an employee stock option or employee stock purchase plan described in the Registration Statement and the Prospectus, (5) any Common Stock to collaborators, partners, joint ventures or the like pursuant to, and in satisfaction of, any agreement existing as of the date of this Agreement and described in the Registration Statement and the Prospectus, (6) the issuance by the Company of Common Stock or any securities convertible into or exchangeable for, or that represent the right to receive, shares of Common Stock in connection with any bona fide licensing, commercialization, joint venture, technology transfer or development collaboration agreement with an unaffiliated third party, provided that in the case of clause (6), the aggregate number of shares of Common Stock that the Company may sell or issue or agree to sell or issue pursuant to clause (6) shall not exceed 5.0% of the total number of shares of Common Stock issued and outstanding immediately following the completion of the transactions contemplated by this Agreement, and provided, further, that in case of clauses (2) and (6), each recipient of such securities shall execute and deliver to the Representatives, on or prior to the issuance of such securities, a lock-up agreement substantially to the effect set forth in Section 8(j) hereto), without your prior written consent;

(2) If the Representatives, in their sole discretion, agrees to release or waive the restrictions set forth in a lock-up letter described in Section 8(j) hereof for an officer or director of the Company and provides the Company with notice of the impending release or waiver at least three business days before the effective date of the release or waiver, the Company agrees to announce the impending release or waiver by a press release substantially in the form of Annex I hereto through a major news service at least two business days before the effective date of the release or waiver.

(f) During a period of three years from the effective date of the Registration Statement, for so long as the Company is subject to the reporting requirements of either Section 13 or Section 15(d) of the Exchange Act, to furnish to its stockholders as soon as practicable after the end of each fiscal year an annual report (including a balance sheet

and statements of income, stockholders' equity and cash flows of the Company certified by independent public accountants) and, as soon as practicable after the end of each of the first three quarters of each fiscal year (beginning with the fiscal quarter ending after the effective date of the Registration Statement), to make available to its stockholders consolidated summary financial information of the Company for such quarter in reasonable detail, provided, that no reports, documents or other information needs to be furnished pursuant to this Section 5(f) to the extent they are available on EDGAR;

(g) During a period of three years from the effective date of the Registration Statement, to furnish to you copies of all reports or other communications (financial or other) furnished to stockholders, and to deliver to you (i) as soon as they are available, copies of any reports and financial statements furnished to or filed with the Commission or any national securities exchange on which any class of securities of the Company is listed; and (ii) such additional information concerning the business and financial condition of the Company as you may from time to time reasonably request (such financial statements to be on a consolidated basis to the extent the accounts of the Company are consolidated in reports furnished to its stockholders generally or to the Commission), provided, that no reports, documents or other information needs to be furnished pursuant to this Section 5(g) to the extent they are available on EDGAR;

(h) To use the net proceeds received by it from the sale of the Shares pursuant to this Agreement in the manner specified in the Pricing Prospectus under the caption "Use of Proceeds";

(i) To use its best efforts to list for quotation the Shares on the Nasdaq Global Select Market ("Nasdaq");

(j) To file with the Commission such information on Form 10-Q or Form 10-K as may be required by Rule 463 under the Act;

(k) If the Company elects to rely upon Rule 462(b), the Company shall file a Rule 462(b) Registration Statement with the Commission in compliance with Rule 462(b) by 10:00 P.M., Washington, D.C. time, on the date of this Agreement, and the Company shall at the time of filing either pay to the Commission the filing fee for the Rule 462(b) Registration Statement or give irrevocable instructions for the payment of such fee pursuant to Rule 111(b) under the Act;

(l) Upon request of any Underwriter, to furnish, or cause to be furnished, to such Underwriter an electronic version of the Company's trademarks, servicemarks and corporate logo for use on the website, if any, operated by such Underwriter for the purpose of facilitating the on-line offering of the Shares (the "License"); provided, however, that the License shall be used solely for the purpose described above, is granted without any fee and may not be assigned or transferred; and

(m) To promptly notify you if the Company ceases to be an Emerging Growth Company at any time prior to the later of (i) completion of the distribution of the Shares within the meaning of the Act and (ii) the last Time of Delivery.

(n) To comply with all applicable securities and other laws, rules and regulations in each jurisdiction in which the Directed Shares are offered in connection with the Directed Share Program.

6. (a) The Company represents and agrees that, without the prior consent of the Representatives, it has not made and will not make any offer relating to the Shares that would constitute a "free writing prospectus" as defined in Rule 405 under the Act; each Underwriter represents and agrees that, without the prior consent of the Company and the Representatives, it has not made and will not make any offer relating to the Shares that would constitute a free writing prospectus required to be filed with the Commission; any such free writing prospectus the use of which has been consented to by the Company and the Representatives is listed on Schedule II(a) hereto;

(b) The Company has complied and will comply with the requirements of Rule 433 under the Act applicable to any Issuer Free Writing Prospectus, including timely filing with the Commission or retention where required and legending; and the Company represents that it has satisfied and agrees that it will satisfy the conditions under Rule 433 under the Act to avoid a requirement to file with the Commission any electronic road show;

(c) The Company agrees that if at any time following issuance of an Issuer Free Writing Prospectus or any Section 5(d) Writing prepared or authorized by it any event occurred or occurs as a result of which such Issuer Free Writing Prospectus or Section 5(d) Writing prepared or authorized by it would conflict with the information in the Registration Statement, the Pricing Prospectus or the Prospectus or would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances then prevailing, not misleading, the Company will give prompt notice thereof to the Representatives and, if requested by the Representatives, will prepare and furnish without charge to each Underwriter an Issuer Free Writing Prospectus, Section 5(d) Writing or other document which will correct such conflict, statement or omission; provided, however, that this representation and warranty shall not apply to any statements or omissions in an Issuer Free Writing Prospectus or Section 5(d) Writing prepared or authorized by it made in reliance upon and in conformity with the Underwriter Information;

(d) The Company represents and agrees that (i) it has not engaged in, or authorized any other person to engage in, any Section 5(d) Communications, other than Section 5(d) Communications with the prior consent of the Representatives with entities that are qualified institutional buyers as defined in Rule 144A under the Act or institutions that are accredited investors as defined in Rule 501(a) under the Act; and (ii) it has not distributed, or authorized any other person to distribute, any Section 5(d) Writings, other than those distributed with the prior consent of the Representatives that are listed on Schedule II(d) hereto; and the Company reconfirms that the Underwriters have been authorized to act on its behalf in engaging in Section 5(d) Communications;

(e) Each Underwriter represents and agrees that any Section 5(d) Communications undertaken by it were with entities that are qualified institutional buyers as defined in Rule 144A under the Act or institutions that are accredited investors as defined in Rule 501(a) under the Act.

7. The Company covenants and agrees with the several Underwriters that the Company will pay or cause to be paid the following: (i) the fees, disbursements and expenses of the Company's counsel and accountants in connection with the registration of the Shares under the Act and all other expenses in connection with the preparation, printing, reproduction and filing of the Registration Statement, any Preliminary Prospectus, any Section 5(d) Writing, any Issuer Free Writing Prospectus and the Prospectus and amendments and supplements thereto and the mailing and delivering of copies thereof to the Underwriters and dealers; (ii) the cost of printing or producing any Agreement among Underwriters, this Agreement, the Blue Sky Memorandum, closing documents (including any compilations thereof) and any other documents in connection with the offering, purchase, sale and delivery of the Shares; (iii) all expenses in connection with the qualification of the Shares for offering and sale under state securities laws as provided in Section 5(b) hereof, including the fees and disbursements of counsel for the Underwriters in connection with such qualification and in connection with the Blue Sky survey; (iv) all fees and expenses in connection with listing the Shares on Nasdaq; (v) the filing fees incident to, and the fees and disbursements of counsel for the Underwriters in connection with, any required review by FINRA of the terms of the sale of the Shares; (vi) the cost of preparing stock certificates; (vii) the cost and charges of any transfer agent or registrar; (viii) all fees and disbursements of counsel incurred by the Underwriters in connection with the Directed Share Program and stamp duties, similar taxes or duties or other taxes, if any, incurred by the Underwriters in connection with the Directed Share Program; and (IX) all other costs and expenses incident to the performance of its obligations hereunder which are not otherwise specifically provided for in this Section; provided, however, that the amount payable by the Company pursuant to clauses (iii) and (v) and for the fees and disbursements of counsel to the Underwriters described in clauses (iii) and (v) shall not exceed \$45,000 in the aggregate. It is understood, however, that, (x) except as provided in this Section, and Sections 9, 10 and 13 hereof, the Underwriters will pay all of their own costs and expenses, including the fees of their counsel, stock transfer taxes on resale of any of the Shares by them, and any advertising expenses connected with any offers they may make and all travel and lodging expenses of the Underwriters and their representatives and counsel; and (y) subject to the Company's and Representatives' prior written approval of each such expense, the Underwriters and the Company shall each pay 50% of the cost of chartering any aircraft to be used in connection with the road show by the Company and the Underwriters.

8. The obligations of the Underwriters hereunder, as to the Shares to be delivered at each Time of Delivery, shall be subject, in their discretion, to the condition that all representations and warranties and other statements of the Company herein are, at and as of the Applicable Time and such Time of Delivery, true and correct, the condition that the Company shall have performed all of its obligations hereunder theretofore to be performed, and the following additional conditions:

(a) The Prospectus shall have been filed with the Commission pursuant to Rule 424(b) under the Act within the applicable time period prescribed for such filing by

the rules and regulations under the Act and in accordance with Section 5(a) hereof; all material required to be filed by the Company pursuant to Rule 433(d) under the Act shall have been filed with the Commission within the applicable time period prescribed for such filing by Rule 433; if the Company has elected to rely upon Rule 462(b) under the Act, the Rule 462(b) Registration Statement shall have become effective by 10:00 P.M., Washington, D.C. time, on the date of this Agreement; no stop order suspending the effectiveness of the Registration Statement or any part thereof shall have been issued and no proceeding for that purpose shall have been initiated or threatened by the Commission; no stop order suspending or preventing the use of the Pricing Prospectus, Prospectus or any Issuer Free Writing Prospectus shall have been initiated or threatened by the Commission; and all requests for additional information on the part of the Commission shall have been complied with to your reasonable satisfaction;

(b) Davis Polk & Wardwell LLP, counsel for the Underwriters, shall have furnished to you their written opinion and 10b-5 statement, dated such Time of Delivery, in form and substance satisfactory to you, and such counsel shall have received such papers and information as they may reasonably request to enable them to pass upon such matters;

(c) Latham & Watkins LLP, counsel for the Company, shall have furnished to you their written opinion and 10b-5 statement, dated such Time of Delivery, in form and substance satisfactory to you;

(d) Wilson Sonsini Goodrich & Rosati, Professional Corporation, intellectual property counsel for the Company, shall have furnished to you their written opinion, dated such Time of Delivery, in form and substance satisfactory to you;

(e) On the date of the Prospectus at a time prior to the execution of this Agreement, at 9:30 a.m., New York City time, on the effective date of any post-effective amendment to the Registration Statement filed subsequent to the date of this Agreement and also at each Time of Delivery, Ernst & Young LLP shall have furnished to you a letter or letters, dated the respective dates of delivery thereof, in form and substance satisfactory to you;

(f) (i) The Company shall not have sustained since the date of the latest audited financial statements included in the Pricing Prospectus any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the Pricing Prospectus, and (ii) since the respective dates as of which information is given in the Pricing Prospectus there shall not have been any change in the capital stock (other than as a result of the exercise of stock options or the award of stock options or restricted stock in the ordinary course of business pursuant to the Company's equity plans that are described in the Pricing Prospectus) or long-term debt of the Company or any change or effect, or any development involving a prospective change or effect, in or affecting (x) the business, properties, general affairs, management, financial position, stockholders' equity or results of operations of the Company, except as set forth or contemplated in the Pricing Prospectus and the Prospectus, or (y) the ability of the Company to perform its

obligations under this Agreement, including the issuance and sale of the Shares, or to consummate the transactions contemplated in the Pricing Prospectus and the Prospectus, the effect of which, in any such case described in clause (i) or (ii), is in your judgment so material and adverse as to make it impracticable or inadvisable to proceed with the public offering or the delivery of the Shares being delivered at such Time of Delivery on the terms and in the manner contemplated in the Pricing Prospectus and the Prospectus;

(g) There are (and prior to the Time of Delivery, will be) no debt securities or preferred stock issued or guaranteed by the Company that are rated by a “nationally recognized statistical rating organization”, as such term is defined under Section 3(a)(62) under the Exchange Act;

(h) On or after the Applicable Time there shall not have occurred any of the following: (i) a suspension or material limitation in trading in securities generally on the New York Stock Exchange or Nasdaq; (ii) a suspension or material limitation in trading in the Company’s securities on Nasdaq; (iii) a general moratorium on commercial banking activities declared by either Federal or New York State or California State authorities or a material disruption in commercial banking or securities settlement or clearance services in the United States; (iv) the outbreak or escalation of hostilities involving the United States or the declaration by the United States of a national emergency or war or (v) the occurrence of any other calamity or crisis or any change in financial, political or economic conditions in the United States or elsewhere, if the effect of any such event specified in clause (iv) or (v) in your judgment makes it impracticable or inadvisable to proceed with the public offering or the delivery of the Shares being delivered at such Time of Delivery on the terms and in the manner contemplated in the Pricing Prospectus and the Prospectus;

(i) The Shares to be sold at such Time of Delivery shall have been duly listed for quotation on Nasdaq;

(j) The Company shall have obtained and delivered to the Underwriters executed copies of an agreement from each member of the Company’s board of directors, each executive officer of the Company and holders representing substantially all of the outstanding Stock on an as converted basis, substantially to the effect set forth in Annex II hereto;

(k) The Company shall have complied with the provisions of Section 5(c) hereof with respect to the furnishing of prospectuses on the New York Business Day next succeeding the date of this Agreement; and

(l) The Company shall have furnished or caused to be furnished to you at such Time of Delivery certificates of officers of the Company satisfactory to you as to the accuracy of the representations and warranties of the Company herein at and as of such Time of Delivery, as to the performance by the Company of all of its obligations hereunder to be performed at or prior to such Time of Delivery, as to the matters set forth in subsections (a) and (e) of this Section and as to such other matters as you may reasonably request.

9. (a) The Company will indemnify and hold harmless each Underwriter, the directors, officers, employees, affiliates and agents of each Underwriter and each person who controls any Underwriter within the meaning of either the Act or the Securities and Exchange Act of 1934, as amended, and regulations promulgated thereunder, against any losses, claims, damages or liabilities, joint or several, to which they or any of them may become subject, under the Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, any Preliminary Prospectus, the Pricing Prospectus or the Prospectus, or any amendment or supplement thereto, any Issuer Free Writing Prospectus, any “roadshow” as defined in Rule 433(h) under the Act (a “roadshow”), or any “issuer information” filed or required to be filed pursuant to Rule 433(d) under the Act or any Section 5(d) Writing, or arise out of or are based upon the 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 each such indemnified party for any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim as such expenses are incurred; *provided, however*, that the Company shall not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in the Registration Statement, any Preliminary Prospectus, the Pricing Prospectus or the Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus or any Section 5(d) Writing, in reliance upon and in conformity with the Underwriter Information.

(b) Each Underwriter will indemnify and hold harmless the Company against any losses, claims, damages or liabilities to which the Company may become subject, under the Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, any Preliminary Prospectus, the Pricing Prospectus or the Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, or any roadshow or any Section 5(d) Writing, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, any Preliminary Prospectus, the Pricing Prospectus or the Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, or any roadshow or any Section 5(d) Writing, in reliance upon and in conformity with the Underwriter Information; and will reimburse the Company for any legal or other expenses reasonably incurred by the Company in connection with investigating or defending any such action or claim as such expenses are incurred. As used in this Agreement with respect to an Underwriter and an applicable document, “Underwriter Information” shall mean the written information furnished to the Company by such Underwriter through the Representatives expressly for use therein; it being understood and agreed upon that the only such information furnished by any Underwriter consists of the following information in the Prospectus furnished on behalf of each Underwriter: the concession and reallowance figures appearing in the fifth paragraph under the caption “Underwriting”, and the information contained in the twelfth, thirteenth and fourteenth paragraph under the caption “Underwriting”.

(c) Promptly after receipt by an indemnified party under subsection (a) or (b) above of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such subsection, notify the indemnifying party in writing of the commencement thereof; provided that the failure to notify the indemnifying party shall not relieve it from any liability that it may have under the preceding paragraphs of this Section 9 except to the extent that it has been materially prejudiced (through the forfeiture of substantive rights or defenses) by such failure; and provided further that the failure to notify the indemnifying party shall not relieve it from any liability that it may have to an indemnified party otherwise than under the preceding paragraphs of this Section 9. In case any such action shall be brought against any indemnified party and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate therein and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel satisfactory to such indemnified party (who shall not, except with the consent of the indemnified party, be counsel to the indemnifying party), and, after notice from the indemnifying party to such indemnified party of its election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party under such subsection for any legal expenses of other counsel or any other expenses, in each case subsequently incurred by such indemnified party, in connection with the defense thereof other than reasonable costs of investigation. No indemnifying party shall, without the written consent of the indemnified party, effect the settlement or compromise of, or consent to the entry of any judgment with respect to, any pending or threatened action or claim in respect of which indemnification or contribution may be sought hereunder (whether or not the indemnified party is an actual or potential party to such action or claim) unless such settlement, compromise or judgment (i) includes an unconditional release of the indemnified party from all liability arising out of such action or claim and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act, by or on behalf of any indemnified party.

(d) If the indemnification provided for in this Section 9 is unavailable to or insufficient to hold harmless an indemnified party under subsection (a) or (b) above in respect of any losses, claims, damages or liabilities (or actions in respect thereof) referred to therein, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages or liabilities (or actions in respect thereof) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other from the offering of the Shares. If, however, the allocation provided by the immediately preceding sentence is not permitted by applicable law or the indemnified party failed to give the notice required under subsection (c) above and such failure resulted in material prejudice (through the forfeiture of substantive rights or defenses), then each indemnifying party shall contribute to such amount paid or payable by such indemnified party in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Company on the one hand and the Underwriters on the other in connection with the statements or omissions which resulted in such

losses, claims, damages or liabilities (or actions in respect thereof), as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total underwriting discounts and commissions received by the Underwriters, in each case as set forth in the table on the cover page of the Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company on the one hand or the Underwriters on the other and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contribution pursuant to this subsection (d) were determined by *pro rata* allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to above in this subsection (d). The amount paid or payable by an indemnified party as a result of the losses, claims, damages or liabilities (or actions in respect thereof) referred to above in this subsection (d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this subsection (d), no Underwriter shall be required to contribute any amount in excess of the amount by which the total price at which the Shares underwritten by it and distributed to the public were offered to the public exceeds the amount of any damages which such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations in this subsection (d) to contribute are several in proportion to their respective underwriting obligations and not joint.

(e) The obligations of the Company under this Section 9 shall be in addition to any liability which the Company may otherwise have and shall extend, upon the same terms and conditions, to each person, if any, who controls any Underwriter within the meaning of the Act and each affiliate of any Underwriter; and the obligations of the Underwriters under this Section 9 shall be in addition to any liability which the respective Underwriters may otherwise have and shall extend, upon the same terms and conditions, to each officer and director of the Company (including any person who, with his or her consent, is named in the Registration Statement as about to become a director of the Company) and to each person, if any, who controls the Company within the meaning of the Act.

10. (a) The Company agrees to indemnify and hold harmless Morgan Stanley, each person, if any, who controls Morgan Stanley within the meaning of either Section 15 of the Securities Act or Section 20 of the Exchange Act and each affiliate of Morgan Stanley within the meaning of Rule 405 of the Securities Act ("Morgan Stanley Entities") from and against any and all losses, claims, damages and liabilities (including, without limitation, any legal or other expenses reasonably incurred in connection with defending or investigating any such action or claim) (i) caused by any untrue statement or alleged

untrue statement of a material fact contained in any material prepared by or with the consent of the Company for distribution to Participants in connection with the Directed Share Program or caused by 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; (ii) caused by the failure of any Participant to pay for and accept delivery of Directed Shares that the Participant agreed to purchase; or (iii) related to, arising out of, or in connection with the Directed Share Program, other than losses, claims, damages or liabilities (or expenses relating thereto) that are finally judicially determined to have resulted from the bad faith or gross negligence of Morgan Stanley Entities.

(b) In case any proceeding (including any governmental investigation) shall be instituted involving any Morgan Stanley Entity in respect of which indemnity may be sought pursuant to Section 10(a), the Morgan Stanley Entity seeking indemnity, shall promptly notify the Company in writing and the Company, upon request of the Morgan Stanley Entity, shall retain counsel reasonably satisfactory to the Morgan Stanley Entity to represent the Morgan Stanley Entity and any others the Company may designate in such proceeding and shall pay the fees and disbursements of such counsel related to such proceeding. In any such proceeding, any Morgan Stanley Entity shall have the right to retain its own counsel, but the fees and expenses of such counsel shall be at the expense of such Morgan Stanley Entity unless (i) the Company shall have agreed to the retention of such counsel or (ii) the named parties to any such proceeding (including any impleaded parties) include both the Company and the Morgan Stanley Entity and representation of both parties by the same counsel would be inappropriate due to actual or potential differing interests between them. The Company shall not, in respect of the legal expenses of the Morgan Stanley Entities in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the fees and expenses of more than one separate firm (in addition to any local counsel) for all Morgan Stanley Entities. Any such separate firm for the Morgan Stanley Entities shall be designated in writing by Morgan Stanley. The Company shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the Company agrees to indemnify the Morgan Stanley Entities from and against any loss or liability by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time a Morgan Stanley Entity shall have requested the Company to reimburse it for fees and expenses of counsel as contemplated by the second and third sentences of this paragraph, the Company agrees that it shall be liable for any settlement of any proceeding effected without its written consent if (i) such settlement is entered into more than 30 days after receipt by the Company of the aforesaid request and (ii) the Company shall not have reimbursed the Morgan Stanley Entity in accordance with such request prior to the date of such settlement. The Company shall not, without the prior written consent of Morgan Stanley, effect any settlement of any pending or threatened proceeding in respect of which any Morgan Stanley Entity is or could have been a party and indemnity could have been sought hereunder by such Morgan Stanley Entity, unless such settlement includes an unconditional release of the Morgan Stanley Entities from all liability on claims that are the subject matter of such proceeding.

(c) To the extent the indemnification provided for in Section 10(a) is unavailable to a Morgan Stanley Entity or insufficient in respect of any losses, claims,

damages or liabilities referred to therein, then the Company in lieu of indemnifying the Morgan Stanley Entity thereunder, shall contribute to the amount paid or payable by the Morgan Stanley Entity as a result of such losses, claims, damages or liabilities (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Morgan Stanley Entities on the other hand from the offering of the Directed Shares or (ii) if the allocation provided by clause 10(c)(i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause 10(c)(i) above but also the relative fault of the Company on the one hand and of the Morgan Stanley Entities on the other hand in connection with any statements or omissions that resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Morgan Stanley Entities on the other hand in connection with the offering of the Directed Shares shall be deemed to be in the same respective proportions as the net proceeds from the offering of the Directed Shares (before deducting expenses) and the total underwriting discounts and commissions received by the Morgan Stanley Entities for the Directed Shares, bear to the aggregate Public Offering Price of the Directed Shares. If the loss, claim, damage or liability is caused by an untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact, the relative fault of the Company on the one hand and the Morgan Stanley Entities on the other hand shall be determined by reference to, among other things, whether the untrue or alleged untrue statement or the omission or alleged omission relates to information supplied by the Company or by the Morgan Stanley Entities and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

(d) The Company and the Morgan Stanley Entities agree that it would not be just or equitable if contribution pursuant to this Section 10 were determined by pro rata allocation (even if the Morgan Stanley Entities were treated as one entity for such purpose) or by any other method of allocation that does not take account of the equitable considerations referred to in Section 10(c). The amount paid or payable by the Morgan Stanley Entities as a result of the losses, claims, damages and liabilities referred to in the immediately preceding paragraph shall be deemed to include, subject to the limitations set forth above, any legal or other expenses reasonably incurred by the Morgan Stanley Entities in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 10, no Morgan Stanley Entity shall be required to contribute any amount in excess of the amount by which the total price at which the Directed Shares distributed to the public were offered to the public exceeds the amount of any damages that such Morgan Stanley Entity has otherwise been required to pay. The remedies provided for in this Section 10 are not exclusive and shall not limit any rights or remedies which may otherwise be available to any indemnified party at law or in equity.

(e) The indemnity and contribution provisions contained in this Section 10 shall remain operative and in full force and effect regardless of (i) any termination of this Agreement, (ii) any investigation made by or on behalf of any Morgan Stanley Entity or the Company, its officers or directors or any person controlling the Company and (iii) acceptance of and payment for any of the Directed Shares.

11. (a) If any Underwriter shall default in its obligation to purchase the Shares which it has agreed to purchase hereunder at a Time of Delivery, you may in your discretion arrange for you or another party or other parties to purchase such Shares on the terms contained herein. If within thirty-six hours after such default by any Underwriter you do not arrange for the purchase of such Shares, then the Company shall be entitled to a further period of thirty-six hours within which to procure another party or other parties satisfactory to you to purchase such Shares on such terms. In the event that, within the respective prescribed periods, you notify the Company that you have so arranged for the purchase of such Shares, or the Company notifies you that it has so arranged for the purchase of such Shares, you or the Company shall have the right to postpone such Time of Delivery for a period of not more than seven days, in order to effect whatever changes may thereby be made necessary in the Registration Statement or the Prospectus, or in any other documents or arrangements, and the Company agrees to file promptly any amendments or supplements to the Registration Statement or the Prospectus which in your opinion may thereby be made necessary. The term "Underwriter" as used in this Agreement shall include any person substituted under this Section with like effect as if such person had originally been a party to this Agreement with respect to such Shares.

(b) If, after giving effect to any arrangements for the purchase of the Shares of a defaulting Underwriter or Underwriters by you and the Company as provided in subsection (a) above, the aggregate number of such Shares which remains unpurchased does not exceed one-eleventh of the aggregate number of all the Shares to be purchased at such Time of Delivery, then the Company shall have the right to require each non-defaulting Underwriter to purchase the number of shares which such Underwriter agreed to purchase hereunder at such Time of Delivery and, in addition, to require each non-defaulting Underwriter to purchase its pro rata share (based on the number of Shares which such Underwriter agreed to purchase hereunder) of the Shares of such defaulting Underwriter or Underwriters for which such arrangements have not been made; but nothing herein shall relieve a defaulting Underwriter from liability for its default.

(c) If, after giving effect to any arrangements for the purchase of the Shares of a defaulting Underwriter or Underwriters by you and the Company as provided in subsection (a) above, the aggregate number of such Shares which remains unpurchased exceeds one-eleventh of the aggregate number of all the Shares to be purchased at such Time of Delivery, or if the Company shall not exercise the right described in subsection (b) above to require non-defaulting Underwriters to purchase Shares of a defaulting Underwriter or Underwriters, then this Agreement (or, with respect to the Second Time of Delivery, the obligations of the Underwriters to purchase and of the Company to sell the Optional Shares) shall thereupon terminate, without liability on the part of any non-defaulting Underwriter or the Company, except for the expenses to be borne by the Company and the Underwriters as provided in Section 7 hereof and the indemnity and contribution agreements in Section 9 hereof; but nothing herein shall relieve a defaulting Underwriter from liability for its default.

12. The respective indemnities, agreements, representations, warranties and other statements of the Company and the several Underwriters, as set forth in this Agreement or made by or on behalf of them, respectively, pursuant to this Agreement,

shall remain in full force and effect, regardless of any investigation (or any statement as to the results thereof) made by or on behalf of any Underwriter or any controlling person of any Underwriter, or the Company, or any officer or director or controlling person of the Company, and shall survive delivery of and payment for the Shares.

13. If this Agreement shall be terminated pursuant to Section 10 hereof, the Company shall not then be under any liability to any Underwriter except as provided in Sections 7 and 9 hereof; but, if for any other reason, any Shares are not delivered by or on behalf of the Company as provided herein, the Company will reimburse the Underwriters through you for all out-of-pocket expenses approved in writing by you, including fees and disbursements of counsel, reasonably incurred by the Underwriters in making preparations for the purchase, sale and delivery of the Shares not so delivered, but the Company shall then be under no further liability to any Underwriter except as provided in Sections 7 and 9 hereof.

14. In all dealings hereunder, you shall act on behalf of each of the Underwriters, and the parties hereto shall be entitled to act and rely upon any statement, request, notice or agreement on behalf of any Underwriter made or given by you jointly.

All statements, requests, notices and agreements hereunder shall be in writing, and if to the Underwriters shall be delivered or sent by mail, telex or facsimile transmission to you as the representatives at (a) Goldman Sachs & Co. LLC, 200 West Street, New York, New York 10282-2198, Attention: Registration Department; (b) Morgan Stanley & Co. LLC, 1585 Broadway, New York, NY 10036, Attention: Equity Syndicate Desk, with a copy to the Legal Department and (c) Citigroup Global Markets Inc., 388 Greenwich Street, New York, New York 10013, Attention: General Counsel, facsimile number: +1 (646) 291-1469; and if to the Company shall be delivered or sent by mail, telex or facsimile transmission to the address of the Company set forth in the Registration Statement, Attention: General Counsel, with a copy (which copy shall not constitute notice) to: Latham & Watkins LLP, 140 Scott Drive, Menlo Park, California 94025, Attention: Brian J. Cuneo, Esq.; provided, however, that any notice to an Underwriter pursuant to Section 9(c) hereof shall be delivered or sent by mail, telex or facsimile transmission to such Underwriter at its address set forth in its Underwriters' Questionnaire, or telex constituting such Questionnaire, which address will be supplied to the Company by you upon request; provided, however, that notices under subsection 5(e) shall be in writing, and if to the Underwriters shall be delivered or sent by mail, telex or facsimile transmission to you as the representatives at (a) Goldman Sachs & Co. LLC, 200 West Street, New York, New York 10282-2198, Attention: Control Room; (b) Morgan Stanley & Co. LLC, 1585 Broadway, New York, NY 10036, Attention: Equity Syndicate Desk, with a copy to the Legal Department; and (c) Citigroup Global Markets Inc., 388 Greenwich Street, New York, New York 10013, Attention: General Counsel, facsimile number: +1 (646) 291-1469. Any such statements, requests, notices or agreements shall take effect upon receipt thereof.

In accordance with the requirements of the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)), the underwriters are required to obtain, verify and record information that identifies their respective clients, including the Company, which information may include the name and address of their respective clients, as well as other information that will allow the underwriters to properly identify their respective clients.

15. This Agreement shall be binding upon, and inure solely to the benefit of, the Underwriters, the Company and, to the extent provided in Sections 9 and 12 hereof, the officers and directors of the Company and each person who controls the Company or any Underwriter, and their respective heirs, executors, administrators, successors and assigns, and no other person shall acquire or have any right under or by virtue of this Agreement. No purchaser of any of the Shares from any Underwriter shall be deemed a successor or assign by reason merely of such purchase.

16. Time shall be of the essence of this Agreement. As used herein, the term "business day" shall mean any day when the Commission's office in Washington, D.C. is open for business.

17. The Company acknowledges and agrees that (i) the purchase and sale of the Shares pursuant to this Agreement is an arm's-length commercial transaction between the Company, on the one hand, and the several Underwriters, on the other, (ii) in connection therewith and with the process leading to such transaction each Underwriter is acting solely as a principal and not the agent or fiduciary of the Company, (iii) no Underwriter has assumed an advisory or fiduciary responsibility in favor of the Company with respect to the offering contemplated hereby or the process leading thereto (irrespective of whether such Underwriter has advised or is currently advising the Company on other matters) or any other obligation to the Company except the obligations expressly set forth in this Agreement and (iv) the Company has consulted its own legal and financial advisors to the extent it deemed appropriate. The Company agrees that it will not claim that the Underwriters, or any of them, has rendered advisory services of any nature or respect, or owes a fiduciary or similar duty to the Company, in connection with such transaction or the process leading thereto.

18. This Agreement supersedes all prior agreements and understandings (whether written or oral) between the Company and the Underwriters, or any of them, with respect to the subject matter hereof.

19. This Agreement and any transaction contemplated by this Agreement shall be governed by and construed in accordance with the laws of the State of New York without regard to principles of conflict of laws that would result in the application of any other law than the laws of the State of New York. The Company agrees that any suit or proceeding arising in respect of this Agreement or any transaction contemplated by this Agreement will be tried exclusively in the U.S. District Court for the Southern District of New York or, if that court does not have subject matter jurisdiction, in any state court located in The City and County of New York and the Company agrees to submit to the jurisdiction of, and to venue in, such courts.

20. The Company and each of the Underwriters hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

21. This Agreement may be executed by any one or more of the parties hereto in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same instrument.

22. Notwithstanding anything herein to the contrary, the Company is authorized to disclose to any persons the U.S. federal and state income tax treatment and tax structure of the potential transaction and all materials of any kind (including tax opinions and other tax analyses) provided to the Company relating to that treatment and structure, without the Underwriters imposing any limitation of any kind. However, any information relating to the tax treatment and tax structure shall remain confidential (and the foregoing sentence shall not apply) to the extent necessary to enable any person to comply with securities laws. For this purpose, "tax structure" is limited to any facts that may be relevant to that treatment.

If the foregoing is in accordance with your understanding, please sign and return to us six counterparts hereof, and upon the acceptance hereof by you, on behalf of each of the Underwriters, this letter and such acceptance hereof shall constitute a binding agreement between each of the Underwriters and the Company. It is understood that your acceptance of this letter on behalf of each of the Underwriters is pursuant to the authority set forth in a form of Agreement among Underwriters, the form of which shall be submitted to the Company for examination upon request, but without warranty on your part as to the authority of the signers thereof.

[Signature Page Follows]

Very truly yours,

Unity Biotechnology, Inc.

By: _____
Name:
Title:

Accepted as of the date hereof:

Goldman Sachs & Co. LLC

By: _____
Name:
Title:

Morgan Stanley & Co. LLC

By: _____
Name:
Title:

Citigroup Global Markets Inc.

By: _____
Name:
Title:

On behalf of each of the Underwriters

[Signature Page to Underwriting Agreement]

SCHEDULE I

<u>Underwriter</u>	<u>Firm Shares to be Purchased</u>	<u>Optional Shares to be Purchased if Maximum Option is Exercised</u>
Goldman Sachs & Co. LLC	[•]	[•]
Morgan Stanley & Co. LLC	[•]	[•]
Citigroup Global Markets Inc.	[•]	[•]
Mizuho Securities USA LLC	[•]	[•]
[•]		
Total	<u>[•]</u>	<u>[•]</u>

SCHEDULE II

(a) Issuer Free Writing Prospectuses not included in the Pricing Disclosure Package:

Electronic roadshow dated [●], 2018

(b) Additional Documents Incorporated by Reference:

None

(c) Information other than the Pricing Prospectus that comprise the Pricing Disclosure Package:

The initial public offering price per share for the Shares is \$ [●]

The number of Shares purchased by the Underwriters is [●]

[Add any other pricing disclosure.]

[(d) Section 5(d) Writings:

[] 2018]

Form of Press Release**Unity Biotechnology, Inc.****[Date]**

Unity Biotechnology, Inc. (the “Company”) announced today that Goldman Sachs & Co. LLC, Morgan Stanley & Co. LLC, and Citigroup Global Markets Inc., the lead book-running managers in the Company’s recent public sale of _____ shares of common stock, is [waiving] [releasing] a lock-up restriction with respect to _____ shares of the Company’s common stock held by [certain officers or directors] [an officer or director] of the Company. The [waiver] [release] will take effect on _____, _____ 20____, and the shares may be sold on or after such date.

This press release is not an offer for sale of the securities in the United States or in any other jurisdiction where such offer is prohibited, and such securities may not be offered or sold in the United States absent registration or an exemption from registration under the United States Securities Act of 1933, as amended.

Form of Lock up Agreement

Unity Biotechnology, Inc.

Lock-Up Agreement

_____, 2018

Goldman Sachs & Co. LLC,
Morgan Stanley & Co. LLC, and
Citigroup Global Markets Inc.

c/o Goldman Sachs & Co. LLC
200 West Street
New York, NY 10282-2198

c/o Morgan Stanley & Co. LLC
1585 Broadway
New York, NY 10036

c/o Citigroup Global Markets Inc.
388 Greenwich Street
New York, NY 10013

Re: Unity Biotechnology, Inc. - Lock-Up Agreement

Ladies and Gentlemen:

The undersigned understands that you, as representatives (the "Representatives"), propose to enter into an Underwriting Agreement on behalf of the several Underwriters named in Schedule I to such agreement (collectively, the "Underwriters"), with Unity Biotechnology, Inc., a Delaware corporation (the "Company"), providing for a public offering ("Public Offering") of the Common Stock of the Company, par value \$0.0001 per share (the "Shares"), pursuant to a Registration Statement on Form S-1 (the "Registration Statement") to be filed with the Securities and Exchange Commission (the "SEC").

In consideration of the agreement by the Underwriters to offer and sell the Shares, and of other good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the undersigned agrees that, during the period beginning from the date hereof and continuing to and including the date 180 days after the date of the final prospectus (the "Prospectus") covering the Public Offering (the "Restricted Period"), the undersigned will not offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of any shares of Common Stock of the Company, or any options or warrants to purchase any shares of Common Stock of the Company, or any securities convertible into, exchangeable for or that represent the right to receive shares of Common Stock of the Company, whether now owned or hereinafter acquired, owned directly by the undersigned (including holding as a custodian) or with respect to which the undersigned has beneficial ownership within the rules and regulations of the SEC (collectively the "Undersigned's Shares"), or publicly disclose the intention

to make any offer, sale, pledge, grant or disposition of the Undersigned's Shares. In addition, the undersigned also agrees that it will not, during the Restricted Period, without the prior written consent of the Representatives on behalf of the Underwriters, make any demand for or exercise any right with respect to, the registration of any of the Undersigned's Shares.

The foregoing restriction is expressly agreed to preclude the undersigned from engaging in any hedging or other transaction which is designed to or which reasonably could be expected to lead to or result in a sale or disposition of the Undersigned's Shares even if such Shares would be disposed of by someone other than the undersigned. Such prohibited hedging or other transactions would include without limitation any short sale or any purchase, sale or grant of any right (including without limitation any put or call option) with respect to any of the Undersigned's Shares or with respect to any security that includes, relates to, or derives any significant part of its value from such Shares.

Notwithstanding the foregoing, the undersigned may, without the prior written consent of the Representatives:

- (a) transfer the Undersigned's Shares as a bona fide gift or gifts;
- (b) transfer or dispose of the Undersigned's Shares to any trust (or similar estate planning vehicle) for the direct or indirect benefit of the undersigned or the immediate family of the undersigned;
- (c) transfer or dispose of the Undersigned's Shares to any corporation, partnership, limited liability company or other entity all of the beneficial ownership interests of which are held by the undersigned or the immediate family of the undersigned;
- (d) transfer or dispose of the Undersigned's Shares by will, other testamentary document or intestate succession to the legal representative, heir, beneficiary or a member of the immediate family of the undersigned;
- (e) distribute the Undersigned's Shares to partners, members or stockholders of the undersigned; and
- (f) transfer the Undersigned's Shares to the undersigned's affiliates or to any investment fund or other entity controlled or managed by the undersigned;

provided that in the case of any transfer or distribution pursuant to clauses (a)-(f) above, each transferee, donee or distributee shall execute and deliver to the Representatives a lock-up letter in the form of this Lock-Up Agreement; and provided, further, that in the case of any transfer, disposition or distribution pursuant to clauses (a)-(f), no filing by any party (donor, donee, transferor or transferee) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or other public announcement shall be required or shall be made voluntarily in connection with such transfer or distribution (other than a filing on a Form 5 after the expiration of the Restricted Period referred to above or the filing of a required Schedule 13F or 13G) and any such transfer or distribution shall not involve a disposition for value. For purposes of this Lock-Up Agreement, "immediate family" shall mean any relationship by blood, marriage or adoption, not more remote than first cousin. The undersigned now has, and, except as contemplated by clauses (a)-(f) above, for the duration of this Lock-Up Agreement will have, good and marketable title to the Undersigned's Shares, free and clear of all liens, encumbrances, and claims whatsoever, other than (i) rights of repurchase or vesting conditions in favor of the Company or (ii) any charitable pledge of the Undersigned's Shares that by its terms could not result in any transfer, disposition or distribution of such shares during the term of this Lock-Up Agreement.

If the undersigned is an officer or director of the Company, the undersigned further agrees that the foregoing provisions shall be equally applicable to any Company-directed Securities the undersigned may purchase in the Public Offering. The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of the Undersigned's Shares except in compliance with the foregoing restrictions.

Furthermore, notwithstanding the restrictions imposed by this Lock-Up Agreement, the undersigned may, without the prior written consent of the Representatives:

- (i) exercise an option to purchase shares of Common Stock granted under any stock incentive plan or stock purchase plan of the Company described in the Registration Statement and the Prospectus, provided that the underlying shares of Common Stock shall continue to be subject to the restrictions on transfer set forth in this 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 Restricted Period, and provided, further, that no filing under the Exchange Act or other public announcement shall be required or shall be made voluntarily in connection therewith during the Restricted Period;
- (iii) transfer or dispose of shares of Common Stock acquired in the Public Offering or on the open market following the Public Offering, provided that no filing under the Exchange Act or other public announcement shall be required or shall be made voluntarily in connection with such transfer or disposition during the Restricted Period (other than a required filing on a Schedule 13F or 13G);
- (iv) transfer, or surrender, to the Company shares of Common Stock (A) pursuant to any contractual arrangement that provides the Company with an option to repurchase such shares of Common Stock in connection with the termination of the undersigned's employment or other service relationship with the Company, (B) to cover tax withholdings upon a vesting event of any equity award granted under any stock incentive plan or stock purchase plan of the Company described in the Registration Statement and the Prospectus or (C) in connection with the "cashless" exercise by the undersigned of an option to purchase shares of Common Stock that will expire during the Restricted Period and that was granted under any stock incentive plan or stock purchase plan of the Company described in the Registration Statement and the Prospectus (the term "cashless" exercise meaning the surrender of a portion of the option shares to the Company to cover payment of the exercise price), provided that any filing under Section 16 of the Exchange Act with regard to (A), (B) or (C) shall clearly indicate in the footnotes thereto that the filing relates to the circumstances described in (A), (B) or (C) above, as the case may be, and no other public announcement shall be required or shall be made voluntarily in connection with such transfer or surrender; and
- (v) transfer or dispose the Undersigned's Shares by operation of law pursuant to a qualified domestic order or in connection with a divorce settlement, provided that the recipient of such shares shall execute and deliver to the Representatives a lock-up letter in the form of this Lock-Up Agreement, provided, further that any filing under Section 16 of the Exchange Act shall clearly indicate in the footnotes thereto that the filing relates to the circumstances described in (v) above and no other public announcement shall be required or shall be made voluntarily in connection with such transfer or disposition.

Further, this Lock-Up Agreement shall not restrict any sale, disposal or transfer of the Undersigned's Shares to a bona fide third party pursuant to a tender offer for securities of the Company or any merger, consolidation or other business combination involving a Change of Control of the Company occurring after the settlement of the Public Offering, that, in each case, has been approved by the board of directors of the Company; provided that all of the Undersigned's Shares subject to this Lock-Up agreement that are not so transferred, sold, tendered or otherwise disposed of remain subject to this Lock-Up Agreement; and provided, further, that it shall be a condition of transfer, sale, tender or other disposition that if such tender offer or other transaction is not completed, any of the Undersigned's Shares subject to this Lock-Up Agreement shall remain subject to the restrictions herein. For the purposes of this paragraph, "Change of Control" means the consummation of any bona fide third party tender offer, merger, consolidation or other similar transaction, the result of which is that any "person" (as defined in Section 13(d)(3) of the Exchange Act), or group of persons, other than the Company or its subsidiaries, becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 of the Exchange Act) of at least 100% of the total voting power of the voting share capital of the Company.

If the undersigned is an officer or director of the Company, (i) the Representatives, on behalf of the Underwriters, agree that, at least three business days before the effective date of any release or waiver of the foregoing restrictions in connection with a transfer of the Undersigned's Shares, the Representatives, on behalf of the Underwriters, will notify the Company of the impending release or waiver, and (ii) the Company will agree in the Underwriting Agreement to announce the impending release or waiver by press release through a major news service at least two business days before the effective date of the release or waiver. Any release or waiver granted by the Representatives on behalf of the Underwriters hereunder to any such officer or director shall only be effective two business days after the publication date of such press release. The provisions of this paragraph will not apply if (a) the release or waiver is effected solely to permit a transfer not for consideration and (b) the transferee has agreed in writing to be bound by the same terms described in this letter to the extent and for the duration that such terms remain in effect at the time of the transfer.

The undersigned understands that if either the Representatives, on the one hand, or the Company, on the other hand, informs the other, prior to the execution of the Underwriting Agreement, that it has determined not to proceed with the Public Offering, if the Underwriting Agreement does not become effective by August 31, 2018, or if the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Shares to be sold thereunder, the undersigned shall be released from, all obligations under this Lock-Up Agreement. The undersigned understands that the Underwriters are entering into the Underwriting Agreement and proceeding with the Public Offering in reliance upon this Lock-Up Agreement.

The undersigned understands that the Company and the Underwriters are relying upon this Lock-Up Agreement in proceeding toward consummation of the offering. The undersigned further understands that this Lock-Up Agreement is irrevocable and shall be binding upon the undersigned's heirs, legal representatives, successors, and assigns.

[Signature page follows]

Very truly yours,

Exact Name of Shareholder

Authorized Signature

Title

**AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF
UNITY BIOTECHNOLOGY, INC.**

Unity Biotechnology, 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 Unity Biotechnology, Inc. The Corporation was originally incorporated under the name "Forge, Inc." The Corporation's original Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on March 30, 2009, was amended on June 25, 2013, amended and restated on June 28, 2013 and further amended on January 28, 2015, June 23, 2015, February 12, 2016, October 14, 2016 and March 15, 2018.

2. This 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.

3. The text of the Certificate of Incorporation is amended and restated to read as set forth in EXHIBIT A attached hereto.

IN WITNESS WHEREOF, Unity Biotechnology, Inc. has caused this Amended and Restated Certificate of Incorporation to be signed by Keith Leonard, a duly authorized officer of the Corporation, on April 20, 2018.

/s/ Keith R. Leonard Jr.

Keith R. Leonard Jr., Chief Executive Officer

EXHIBIT A

ARTICLE I

The name of the Corporation is Unity Biotechnology, Inc.

ARTICLE II

The purpose of this corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of Delaware.

ARTICLE III

The address of the Corporation's registered office in the State of Delaware is 1209 Orange Street, City of Wilmington, County of New Castle, 19801. The name of the registered agent at such address is The Corporation Trust Company.

ARTICLE IV

1. Effective upon the filing of this Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware (the "**Effective Time**"), each 2.95 shares of Common Stock (as defined below) issued and outstanding shall be reclassified as one share of Common Stock, each 2.95 shares of Series A Preferred Stock, Series A-1 Preferred Stock, Series A-2 Preferred Stock, Series B Preferred Stock and Series C Preferred Stock (as each is defined below) issued and outstanding shall be reclassified as one share of Series A Preferred Stock, Series A-1 Preferred Stock, Series A-2 Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, respectively (the "**Reverse Stock Split**").

2. Each stock certificate representing shares of any class or series of Common Stock or Preferred Stock (as defined below) immediately prior to the Effective Time shall, from and after the Effective Time, represent that number of shares of the class or series of Common Stock or Preferred Stock into which such shares shall have been reclassified pursuant to the Reverse Stock Split; provided, however, that each holder of any stock certificate(s) that represented shares of Common Stock or Preferred Stock immediately prior to the Effective Time shall be entitled to receive, upon surrender of such certificate(s), one or more certificates (or book entry shares) evidencing and representing the number of shares of Common Stock or Preferred Stock into which the shares represented by such certificate(s) shall have been reclassified pursuant to the Reverse Stock Split.

3. No fractional shares shall be issued for shares of Preferred Stock or Common Stock pursuant to the Reverse Stock Split. If the Reverse Stock Split would result in the issuance of any fractional share of any class or series of Common Stock or Preferred Stock, the Corporation shall, in lieu of issuing any such fractional share, pay cash in an amount equal to the fair value of such fractional share (as determined in good faith by the Board of Directors). All applicable share, per share and dollar references in this Amended and Restated Certificate of Incorporation requiring adjustment for the Reverse Stock Split have been adjusted herein.

4. The total number of shares of stock that the corporation shall have authority to issue is two hundred forty-three million two hundred eighty-three thousand eight hundred eighteen (243,283,818) shares, consisting of one hundred forty million (140,000,000) shares of Common Stock, \$0.0001 par value per share, and one hundred three million two hundred eighty-three thousand eight hundred eighteen (103,283,818)

shares of Preferred Stock, \$0.0001 par value per share. The first Series of Preferred Stock shall be designated “**Series A Preferred Stock**” and shall consist of forty-one million seven hundred thirty-nine thousand one hundred forty-nine (41,739,149) shares. The Series A Preferred Stock shall further be divided into series of stock, designated as “**Series A-1 Preferred Stock**”, consisting of nine million eighty-five thousand seven hundred thirty-eight (9,085,738) shares, and “**Series A-2 Preferred Stock**” consisting of thirty-two million six hundred fifty-three thousand four hundred eleven (32,653,411) shares. The second Series of Preferred Stock shall be designated “**Series B Preferred Stock**” and shall consist of fifty million (50,000,000) shares. The third Series of Preferred Stock shall be designated “**Series C Preferred Stock**” and shall consist of eleven million five hundred forty four thousand six hundred sixty-nine (11,544,669) shares.

ARTICLE V

The terms and provisions of the Common Stock and Preferred Stock are as follows:

1. **Definitions.** For purposes of this ARTICLE V, the following definitions shall apply:

- (a) “**Board of Directors**” shall mean the board of directors of the Corporation.
- (b) “**Convertible Securities**” shall mean any evidences of indebtedness, shares or other securities convertible into or exchangeable for Common Stock.
- (c) “**Conversion Price**” shall mean the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price, as applicable.
- (d) “**Corporation**” shall mean Unity Biotechnology, Inc.
- (e) “**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 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 or its subsidiaries upon termination of their employment or services pursuant to agreements 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 providing for such right, (iii) repurchase of capital stock of the Corporation in connection with the settlement of disputes with any stockholder, and (iv) any other repurchase or redemption of capital stock of the Corporation approved by the holders of (a) at least a majority of the Common Stock and (b) at least sixty percent (60%) of the outstanding shares of Preferred Stock of the Corporation, voting as a single class on as-converted basis; provided, that any repurchases of capital stock of the Corporation pursuant to clauses (i) through (iii) shall be at a price no greater than the then-fair market value of such capital stock.
- (f) “**Filing Date**” shall mean the date of the filing and certification of this Amended and Restated Certificate of Incorporation by the Secretary of State of the State of Delaware.
- (g) “**Liquidation Preference**” shall mean for the Series A Preferred Stock, the Series A Liquidation Preference, shall mean for the Series B Preferred Stock, the Series B Liquidation Preference, and shall mean for the Series C Preferred Stock, the Series C Liquidation Preference.
- (h) “**Options**” shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(i) “**Original Issue Price**” shall mean for the Series A Preferred Stock, the Series A Original Issue Price, shall mean for the Series B Preferred Stock, the Series B Original Issue Price, and shall mean for the Series C Preferred Stock, the Series C Original Issue Price.

(j) “**Preferred Stock**” shall mean the Series A Preferred Stock, the Series B Preferred Stock and the Series C Preferred Stock.

(k) “**Recapitalization**” shall mean any stock dividend, stock split, combination of shares, reorganization, recapitalization, reclassification or other similar event.

(l) “**Series A Conversion Price**” shall mean \$0.8644 per share for the Series A-1 Preferred Stock and \$0.8762 per share for the Series A-2 Preferred Stock (in each case, subject to adjustment from time to time after the Filing Date for Recapitalizations).

(m) “**Series A Liquidation Preference**” shall equal, on a per share basis, the Series A Original Issue Price, plus an amount equal to any dividends declared but unpaid thereon, computed to the date payment thereof is made available.

(n) “**Series A Original Issue Price**” shall mean \$0.8644 per share for the Series A-1 Preferred Stock and \$0.8762 per share for the Series A-2 Preferred Stock (in each case, subject to adjustment from time to time after the Filing Date for Recapitalizations).

(o) “**Series A Preferred Stock**” shall mean the Series A-1 Preferred Stock together with the Series A-2 Preferred Stock.

(p) “**Series B Conversion Price**” shall mean \$12.1245 per share (subject to adjustment from time to time after the Filing Date for Recapitalizations).

(q) “**Series B Liquidation Preference**” shall equal, on a per share basis, the Series B Original Issue Price, plus an amount equal to any dividends declared but unpaid thereon, computed to the date payment thereof is made available.

(r) “**Series B Original Issue Price**” shall mean \$12.1245 per share (subject to adjustment from time to time after the Filing Date for Recapitalizations).

(s) “**Series B Preferred Stock**” shall mean the Series B Preferred Stock.

(t) “**Series C Conversion Price**” shall mean \$15.3317 per share (subject to adjustment from time to time after the Filing Date for Recapitalizations).

(u) “**Series C Liquidation Preference**” shall equal, on a per share basis, the Series C Original Issue Price, plus an amount equal to any dividends declared but unpaid thereon, computed to the date payment thereof is made available.

(v) “**Series C Original Issue Price**” shall mean \$15.3317 per share (subject to adjustment from time to time after the Filing Date for Recapitalizations).

(w) “**Series C Preferred Stock**” shall mean the Series C Preferred Stock.

2. Dividends.

(a) **Preferred Stock.** The holders of shares of Series C Preferred Stock shall be entitled to receive dividends, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (other than dividends on the Common Stock payable solely in Common Stock) on the Series B Preferred Stock, Series A Preferred Stock and Common Stock, at the rate of six percent (6%) of the Series C Original Issue Price per annum on each outstanding share of Series C Preferred Stock then outstanding; payable when, as and if declared by the Board of Directors. Such dividends shall not be cumulative. Only after payment of the dividends to the holders of Series C Preferred Stock, the holders of shares of Series B Preferred Stock shall be entitled to receive dividends, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (other than dividends on the Common Stock payable solely in Common Stock) on the Series A Preferred Stock and Common Stock, at the rate of six percent (6%) of the Series B Original Issue Price per annum on each outstanding share of Series B Preferred Stock then outstanding; payable when, as and if declared by the Board of Directors. Such dividends shall not be cumulative. Only after payment of the dividends to the holders of Series C Preferred Stock and Series B Preferred Stock, the holders of shares of Series A Preferred Stock shall be entitled to receive dividends, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (other than dividends on the Common Stock payable solely in Common Stock) on the Common Stock, at the rate of six percent (6%) of the Series A Original Issue Price per annum on each outstanding share of Series A Preferred Stock then outstanding; payable when, as and if declared by the Board of Directors. Such dividends shall not be cumulative.

(b) **Additional Dividends.** After the payment or setting aside for payment of the dividends described in Section V.2(a), any additional dividends (other than dividends on Common Stock payable solely in Common Stock) set aside or paid in any fiscal year shall be set aside or paid among the holders of the Preferred Stock and Common Stock then outstanding on a *pari passu* basis in proportion to the greatest whole number of shares of Common Stock which would be held by each such holder if all shares of Preferred Stock were converted at the then-effective Conversion Rate.

(c) **Non-Cash Distributions.** Whenever a Distribution provided for in this Section V.2 shall be payable in property other than cash, the value of such Distribution shall be deemed to be the fair market value of such property as determined in good faith by the Board of Directors (including a majority of the Investor Directors).

(d) **Consent to Certain Distributions.** A distribution can be made without regard to any preferential dividends arrears amount or any preferential rights amount 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 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 providing for such right, (iii) repurchases of Common Stock or Preferred Stock in connection with the settlement of disputes with any stockholder, or (iv) any other repurchase or redemption of Common Stock or Preferred Stock approved by the holders of at least sixty percent (60%) of the outstanding shares of Preferred Stock of the Corporation, voting as a single class on an as-converted basis; provided, that any repurchases of capital stock of the Corporation pursuant to clauses (i) through (iii) shall be at a price no greater than the then-fair market value of such capital stock.

3. Liquidation Rights.

(a) **Liquidation Preference.** In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event (as defined below), prior to and in preference to any Distribution of any of the assets of the Corporation to the holders of the Series B Preferred Stock, Series A Preferred Stock or Common Stock, by reason of their ownership of such stock, the holders of

the shares of Series C Preferred Stock shall be paid, on a *pari passu* basis, an amount per share equal to the Series C Liquidation Preference. If upon any such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series C Preferred Stock the full amount to which they shall be entitled under this Section V.3(a), the holders of shares of Series C Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full. After the payment or setting aside for payment to the holders of the Series C Preferred Stock of the full amount of the Series C Liquidation Preference, prior 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, the holders of Series B Preferred Stock shall be paid, on a *pari passu* basis, an amount per share equal to the Series B Liquidation Preference. If upon any such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series B Preferred Stock the full amount to which they shall be entitled under this Section V.3(a), the holders of shares of Series B Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full. After the payment or setting aside for payment to the holders of the Series C Preferred Stock and Series B Preferred Stock of the full amount of the Series C Liquidation Preference and Series B Liquidation Preference, prior 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, the holders of Series A Preferred Stock shall be paid, on a *pari passu* basis, an amount per share equal to the Series A Liquidation Preference. If upon any such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series A Preferred Stock the full amount to which they shall be entitled under this Section V.3(a), the holders of shares of Series A Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(b) **Remaining Assets.** After the payment or setting aside for payment to the holders of Preferred Stock of the full amounts specified in Section V.3(a), the entire remaining assets of the Corporation legally available for distribution shall be distributed *pro rata* to holders of the Common Stock of the Corporation in proportion to the number of shares of Common Stock held by them.

(c) **Shares not Treated as Both Preferred Stock and Common Stock in any Distribution.** Shares of Preferred Stock shall not be entitled to be converted into shares of Common Stock in order to participate in any Distribution, or series of Distributions, as shares of Common Stock, without first forgoing participation in the Distribution, or series of Distributions, as shares of Preferred Stock. Notwithstanding the foregoing, if a holder of Preferred Stock would receive an amount per share greater than its respective Liquidation Preference if such share were converted to Common Stock, then each share of Preferred Stock shall be treated as if such holder had converted such holder's shares of Preferred Stock into shares of Common Stock immediately prior to the liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event and each such holder will share ratably in any distribution in connection with such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event on an as-if-converted to Common Stock basis while foregoing participation as Preferred Stock.

(d) **Reorganization.** For purposes of this Section V.3, 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 entity 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 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 outstanding 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 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 (clauses (i), (ii) and (iii), a “**Deemed Liquidation Event**”). The treatment of any transaction or series of related transactions as a liquidation, dissolution or winding up pursuant to clause (i) or (ii) of the preceding sentence may be waived by the consent or vote of the holders of at least sixty percent (60%) of the outstanding shares of the Preferred Stock (voting together as a single class on an as-converted to Common Stock basis).

(e) **Valuation of Non-Cash Consideration.** If any assets of the Corporation distributed to stockholders in connection with any liquidation, dissolution, or winding up of the Corporation 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 a majority of the Investor Directors, *except that* any publicly-traded securities to be distributed to stockholders in a liquidation, dissolution, or winding up of the Corporation 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 ten (10) trading day period ending five (5) trading days prior to the Distribution; and

(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 ten (10) trading day period ending five (5) 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 V.3(e), “**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, the NYSE MKT or a Nasdaq 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.

(f) **Allocation of Escrow and Contingent Consideration.** In the event of a Deemed Liquidation Event pursuant to Section V.3(d)(i), if any portion of the consideration payable to the stockholders of the Corporation is payable only upon satisfaction of contingencies (the “**Additional Consideration**”), the agreement or plan of merger or consolidation for such transaction shall provide that (a) the portion of such consideration that is not Additional Consideration (such portion, the “**Initial Consideration**”) shall be allocated among the holders of capital stock of the Corporation in accordance with Sections 3(a) and 3(b) as if the Initial Consideration were the only consideration payable in connection with

such Deemed Liquidation Event; and (b) any Additional Consideration which becomes payable to the stockholders of the Corporation upon satisfaction of such contingencies shall be allocated among the holders of capital stock of the Corporation in accordance with Sections 3(a) and 3(b) after taking into account the previous payment of the Initial Consideration as part of the same transaction. For the purposes of this Section 3(f), consideration placed into escrow or retained as holdback to be available for satisfaction of indemnification or similar obligations in connection with such Deemed Liquidation Event shall be deemed to be Additional Consideration.

4. Conversion. The holders of the Preferred Stock shall have conversion rights as follows:

(a) **Right to Convert.** 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 at the office of the Corporation or any transfer agent for the Preferred Stock, into that number of fully-paid, nonassessable shares of Common Stock determined by dividing the Original Issue Price for the relevant series by the Conversion Price for such series. (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 V.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 (x) the aggregate gross proceeds to the Corporation are not less than \$30,000,000 and (y) the price per share to the public is not less than the Series C Original Issue Price (a “**Qualified Public Offering**”), or (ii) upon the receipt by the Corporation of a written request for such conversion from the holders of at least sixty percent (60%) of the Preferred Stock then outstanding (voting together as a single class and on an as-converted basis), or, if later, the effective date for conversion specified in such requests (each of the events referred to in (i) and (ii) are referred to herein as an “**Automatic Conversion Event**”).

(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 (including at least a majority of the Investor 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, he 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 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 he 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 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, (i) a certificate or certificates for the number of shares of Common Stock to which the holder shall be entitled as aforesaid, (ii) a certificate for the number of the shares of Preferred Stock (if any) represented by the surrendered certificate that were not converted into Common Stock and (iii) 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, and an amount equal to all dividends declared or accrued but unpaid payable (i) in shares of Common Stock at the Conversion Price in effect at the time of the conversion, or (ii) in cash, as determined in good faith by the Board of Directors (including at least a majority of the Investor Directors). 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, financing, or liquidation of the Corporation or other event, the conversion may, at the option of any holder tendering Preferred Stock for conversion, be conditioned upon the closing of such transaction or upon the occurrence of such event, in which case 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 or the occurrence of such event.

(d) Adjustments to Conversion Price for Diluting Issues.

(i) **Special Definition.** For purposes of this paragraph 4(d), “**Additional Shares of Common**” shall mean all shares of Common Stock issued (or, pursuant to paragraph 4(d)(iii), deemed to be issued) by the Corporation after the Filing Date, other than issuances or deemed issuances of:

(1) shares of Common Stock 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 stock grants, restricted stock purchase agreements, option plans, purchase plans, incentive programs or similar arrangements, shares of or options, warrants or other rights to purchase Common Stock net of any stock repurchases or expired or terminated options pursuant to the terms of any option plan, restricted stock purchase agreement or similar arrangement, *provided*, that such issuances are approved by the Board of Directors (including at least a majority of the Investor Directors);

(3) shares of Common Stock upon the exercise or conversion of Options or Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security;

(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 V.4(e), V.4(f) or V.4(g) hereof;

(5) shares of Common Stock issued or issuable in a registered public offering under the Securities Act;

(6) shares of Common Stock or Options or Convertible Securities issued or issuable in connection with bona fide acquisitions, mergers or similar transactions, *provided*, that such issuances are approved by the Board of Directors (including at least a majority of the Investor Directors);

(7) shares of Common Stock issued or issuable to banks, equipment lessors, real property lessors, financial institutions or other persons engaged in the business of making loans pursuant to a debt financing, commercial leasing or real property leasing transaction, the principal purpose of which is other than the raising of capital through the sale of equity securities of the Corporation, approved by the Board of Directors (including at least a majority of the Investor Directors);

(8) shares of Common Stock issued or issuable in connection with any settlement of any action, suit, proceeding or litigation approved by the Board of Directors (including at least a majority of the Investor Directors);

(9) 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 approved by the Board of Directors (including at least a majority of the Investor Directors);

(10) 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 (including at least a majority of the Investor Directors); and

(11) any right, option or warrant to acquire any security convertible into the securities excluded from the definition of Additional Shares of Common pursuant to subsections (1) through (10) above.

(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 paragraph 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 Filing Date shall issue or amend 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 amendment, as applicable, 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 V.4(d) or pursuant to Recapitalization provisions of such Options or Convertible Securities such as Sections V.4(e), V.4(f) and V.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 V.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 paragraph 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 at any time or from time to time after the Filing Date shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to paragraph 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 on an as-converted basis 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 on an as-converted basis 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 \$0.001, 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 \$0.001 or more in the aggregate. For the purposes of this Section V.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 V.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 after 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 (including at least a majority of the Investor 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 (including a majority of the Investor 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 paragraph 4(d)(iii) shall be determined by dividing

(x) 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

(y) 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 reverse split, 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 Dividend Rate, Original Issue Price and Liquidation Preference of the affected 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 Preferred Stock or a series of Preferred Stock shall be combined (by reverse split, reclassification or otherwise) into a lesser number of shares of Preferred Stock, the Dividend Rate, Original Issue Price and Liquidation Preference of the affected series of 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 V.3 (“**Liquidation 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 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 V.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 (i) such adjustments and readjustments, (ii) the Conversion Price 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, (i) any downward adjustment of the Conversion Price of any shares of Series A Preferred Stock may be waived by the consent or vote of the holders of at least 66.67% of the outstanding shares of Series A Preferred Stock either before or after the issuance causing the adjustment; (ii) any downward adjustment of the Conversion Price of any shares of Series B Preferred Stock may be waived by the consent or vote of the holders of at least a majority of the outstanding shares of Series B Preferred Stock either before or after the issuance causing the adjustment; and (iii) any downward adjustment of the Conversion Price of any shares of Series C Preferred Stock may be waived by the consent or vote of the holders of at least a majority of the outstanding shares of Series C Preferred Stock either before or after the issuance causing the adjustment. Any such waiver shall bind all future holders of shares of such series of Preferred Stock.

(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 liquidation, dissolution or winding up of the corporation pursuant to Section 3(d);

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 consent or vote of the holders of at least 60% of the outstanding shares of Preferred Stock, voting as a single class on as-converted basis.

(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.

(l) **Taxes.** The Corporation shall pay any and all issue and other similar taxes (but not including, for the avoidance of doubt, any income or similar tax) that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Preferred Stock pursuant to this Section 4. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

5. Voting.

(a) **Election of Directors.**

(i) The holders of outstanding shares of Series A Preferred Stock shall, voting together as a single class, be entitled to elect two (2) members of the Board of Directors (such members, the "**Series A Directors**"). Except as provided in Section V.5(a)(iii)(D) below, such directors shall be elected by

a plurality vote, with the elected candidates being the candidates receiving the greatest number of affirmative votes (with each holder of Series A Preferred Stock entitled to cast one vote for or against each candidate with respect to each share of Series A Preferred Stock held by such holder) of the outstanding shares of Series A Preferred Stock, with votes cast against such candidates and votes withheld having no legal effect.

(ii) The holders of outstanding shares of Series B Preferred Stock shall, voting together as a single class, be entitled to elect one (1) member of the Board of Directors (the “**Series B Director**” and, together with the Series A Directors, the “**Investor Directors**”). Except as provided in Section V.5(a)(iii)(D) below, such director shall be elected by a plurality vote, with the elected candidate being the candidate receiving the greatest number of affirmative votes (with each holder of Series B Preferred Stock entitled to cast one vote for or against each candidate with respect to each share of Series B Preferred Stock held by such holder) of the outstanding shares of Series B Preferred Stock, with votes cast against such candidates and votes withheld having no legal effect.

(iii) The election of directors pursuant to clauses (i) and (ii) above shall occur (A) at the annual meeting of holders of capital stock, (B) at any special meeting of holders of capital stock if such meeting is called for the purpose of electing directors, (C) at any special meeting of holders of Series A Preferred Stock or Series B Preferred Stock, as applicable, called by holders or (D) by the written consent of the holders of not less than a majority of the outstanding shares of Series A Preferred Stock or Series B Preferred Stock, as applicable. If at any time a vacancy occurs among the directors elected by the holders of a class or series of Preferred Stock and at the time of such vacancy shares of such class or series are outstanding, the vacancy shall only be filled by the vote or written consent of the holders of the outstanding shares of such class or series of Preferred Stock, voting together as a separate class, in the manner and on the basis specified above or as otherwise provided by law.

(iv) The holders of outstanding shares of Preferred Stock shall also be entitled to vote in the election of all other directors of the Corporation together with holders of all other shares of the Corporation’s outstanding capital stock entitled to vote thereon, voting as a single class, with each outstanding share of Preferred Stock entitled to the number of votes specified in Section V.5(d) hereof. The holders of outstanding shares of Preferred Stock may, in their sole discretion, determine not to elect one or more directors as provided herein from time to time, and during any such period the Board of Directors shall not be deemed unduly constituted solely as a result of such vacancy.

(b) **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.

(c) **No Series Voting.** Other than as provided herein or required by law, there shall be no series voting.

(d) **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. 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. Holders of Preferred Stock shall be entitled to notice of any stockholders’ meeting in accordance with the Bylaws of the Corporation. Fractional votes shall not, however, 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.

(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 Amended and Restated 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.

6. Amendments and Changes.

(a) As long as any of the Preferred Stock shall be issued and outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least sixty percent (60%) of the outstanding shares of the Preferred Stock (in addition to any other vote required by law or the Certificate of Incorporation or bylaws), voting as a single class on an as-converted basis, with any such act or transaction effected without such approval being null and void *ab initio* and of no force or effect:

(i) amend, alter, repeal or waive any provision of the Certificate of Incorporation or bylaws of the Corporation if such action would adversely alter the rights, preferences, privileges or powers of, or restrictions provided for the benefit of the Preferred Stock or any series thereof;

(ii) 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;

(iii) authorize or create 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, or payments upon liquidation senior to or on a parity with any series of Preferred Stock;

(iv) enter into any transaction or series of related transactions deemed to be a liquidation, dissolution or winding up of the Corporation, including, without limitation, any Deemed Liquidation Event;

(v) enter into any transaction with any of its officers, directors, employees or affiliates (or any of their affiliates), except (x) in the ordinary course of business and pursuant to the reasonable requirements of the Corporation's business and upon fair and reasonable terms at least as fair to the Corporation as could have been reasonably obtained on an arm's length basis, (y) as approved by the Board of Directors (including at least a majority of the Investor Directors) or (z) for any loan or advance (A) for ordinary travel, entertainment and similar expenses, (B) pursuant to any employee stock option plan or stock purchase agreement approved by the Board of Directors (including at least a majority of the Investor Directors), or (C) not in excess of \$25,000 in the aggregate (if an advance);

(vi) authorize a merger, acquisition or a share exchange with any other corporation or sale of substantially all of the assets of the Corporation or any of its subsidiaries (other than a merger exclusively to effect a change of domicile of the Corporation) or effect any transaction which results in the holders of the Corporation's capital stock prior to the transaction owning less than 50% of the voting power of the Corporation's capital stock after the transaction;

(vii) voluntarily liquidate or dissolve;

(viii) increase or decrease the size of the Board of Directors;

(ix) authorize or undertake any public offering other than a Qualified Public Offering;

(x) enter into any exclusive license of any of the Corporation's material intellectual property except as approved by the Board of Directors (including at least a majority of the Investor Directors);

(xi) declare or pay any Distribution with respect to the Preferred Stock or Common Stock of the Corporation as approved by the Board of Directors (including at least a majority of the Investor Directors);

(xii) create or authorize the creation of any debt security unless such debt security has received the prior approval of the Board of Directors (including at least a majority of the Investor Directors);

(xiii) create, or hold capital stock in, any subsidiary that is not a wholly-owned subsidiary of the Corporation or dispose of any stock of any direct or indirect subsidiary of the Corporation or permit any direct or indirect subsidiary to sell, lease, transfer, exclusively license or otherwise dispose (in a single transaction or series of related transactions) of all or substantially all of any subsidiary assets;

(xiv) change the Corporation's principal line of business outside of biotechnology drug development; or

(xv) amend this Section V.6.

(b) As long as any of the Series A Preferred Stock shall be issued and outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least 66.67% of the outstanding shares of the Series A Preferred Stock, voting together as a single class on an as-converted basis, amend, alter, repeal or waive any provision of the Certificate of Incorporation or bylaws of the Corporation if such action would adversely alter the rights, preferences, privileges or powers of, or restrictions provided for the benefit of the Series A Preferred Stock that affects the Series A Preferred as a series differently than the Preferred Stock as a class, with any such act or transaction effected without such approval being null and void *ab initio* and of no force or effect.

(c) As long as any of the Series B Preferred Stock shall be issued and outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least a majority of the outstanding shares of the Series B Preferred Stock, voting together as a single class on an as-converted basis, amend, alter, repeal or waive any provision of the Certificate of Incorporation or bylaws of the Corporation if such action would adversely alter the rights, preferences, privileges or powers of, or restrictions provided for the benefit of the Series B Preferred Stock that affects the Series B Preferred as a series differently than the Preferred Stock as a class, with any such act or transaction effected without such approval being null and void *ab initio* and of no force or effect.

(d) As long as any of the Series C Preferred Stock shall be issued and outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least a majority of the outstanding shares of the Series C Preferred Stock, voting together as a single class on an as-converted basis, amend, alter, repeal or waive any provision of the Certificate of Incorporation or bylaws of the Corporation if such action would adversely alter the rights, preferences, privileges or powers of, or restrictions provided for the benefit of the Series C Preferred Stock that affects the Series C Preferred as a series differently than the Preferred Stock as a class, with any such act or transaction effected without such approval being null and void *ab initio* and of no force or effect.

7. **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.

8. **No Reissuance of Preferred Stock.** No share or shares of Preferred Stock acquired by the Corporation by reason of redemption, purchase, conversion or otherwise shall be reissued, and all such shares shall be canceled, retired and eliminated from the shares which the Corporation shall be authorized to issue.

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

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 General Corporation Law of the State of Delaware as currently in effect (the "**DGCL**"), 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 DGCL 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 automatically eliminated or limited to the fullest extent permitted by the DGCL, as so amended without further action by the Corporation. Neither any amendment nor repeal of this Section X.1, nor the adoption of any provision of this Corporation's Certificate of Incorporation inconsistent with this Section X.1, shall eliminate or reduce the effect of this Section X.1, in respect of any matter occurring, or any action or proceeding accruing or arising or that, but for this Section X.1, would accrue or arise, prior to such amendment, repeal or adoption of an inconsistent provision.

2. The Corporation shall have the power to indemnify (and with respect to Directors, shall indemnify), to the extent permitted by the DGCL as currently in effect, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (a "**Proceeding**") 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. A right to indemnification or to advancement of expenses arising under a provision of this Certificate of Incorporation or a bylaw of the Corporation shall not be eliminated or impaired by an amendment to this Certificate of Incorporation or the Bylaws of the Corporation after the occurrence of the act or omission that is the subject of the civil, criminal, administrative or investigative action, suit or proceeding for which indemnification or advancement of expenses is sought, unless the provision in effect at the time of such act or omission explicitly authorizes such elimination or impairment after such action or omission has occurred (and with respect to Directors, such right to indemnification shall not be eliminated or impaired).

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) 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

In recognition and anticipation that (i) certain of the Covered Persons (as defined below) may serve as Directors or officers of the Corporation, (ii) certain holders of Preferred Stock and their respective Affiliated Companies (as defined below) engage and may continue to engage in the same or similar activities or related lines of business as those in which the Corporation, directly or indirectly, may engage and/or other business activities that overlap with or compete with those in which the Corporation, directly or indirectly, may engage, and (iii) the Corporation and its Affiliated Companies may engage in material business transactions with one or more holders of Preferred Stock and their respective Affiliated Companies, and that the Corporation is expected to benefit therefrom, the provisions of this ARTICLE XII are set forth to regulate and define the conduct of certain affairs of the Corporation as they may involve the Covered Persons, and the powers, rights, duties and liabilities of the Corporation and its officers, Directors and stockholders in connection therewith.

The Corporation and its Affiliated Companies renounce, to the fullest extent permitted by law, any interest or expectancy of the Corporation and its Affiliated Companies in, or in being offered an opportunity to participate in, any Excluded Opportunity (as defined below). As a result of such renunciation, to the fullest extent permitted by applicable law, (a) all Excluded Opportunities shall belong to the applicable holder of Preferred Stock and its Affiliated Companies, (b) no Covered Person shall have any duty to present any Excluded Opportunity to the Corporation or its Affiliated Companies, (c) the Covered Persons shall have the right to hold and exploit all Excluded Opportunities for their own account and benefit, or to direct, sell, assign or transfer any Excluded Opportunity to any other person or entity and (d) the Covered Persons cannot be, and shall not be, liable to the Corporation, its stockholders or its Affiliated Companies for breach of any fiduciary duty to the Corporation, its stockholders or its Affiliated Companies by reason of the fact that any

Covered Person does not present any Excluded Opportunity to the Corporation or its Affiliated Companies or pursues, acquires or exploits any Excluded Opportunity for itself or directs, sells, assigns or transfers any Excluded Opportunity to any other person or entity.

“Excluded Opportunity” means any matter, transaction or interest or potential matter, transaction or interest (including without limitation those that might be the same as or similar to the business or activities of the Corporation or any of its Affiliated Companies) that is presented to, or acquired, created or developed by, or that otherwise comes into the possession of, any Covered Person unless such matter, transaction or interest is offered in writing to a Covered Person expressly and solely in such Covered Person’s capacity as a Director or officer of the Corporation.

“Affiliated Company” means (a) in respect of any person or entity (other than the Corporation), (i) any entity that controls, is controlled by or is under common control with such person or entity (other than the Corporation and any entity that is controlled by the Corporation) and (ii) any investment fund managed by such person or entity or any person or entity that controls, is controlled by or is under common control with such person or entity, and (b) in respect of the Corporation, any entity controlled by the Corporation.

“Covered Persons” means (a) a holder of Preferred Stock and any partner, member, director, officer, stockholder, employee or agent of such holder of Preferred Stock or any of its Affiliated Companies, and (b) any person serving as a Director, officer, employee or agent of the Corporation at the request of a holder of Preferred Stock or any of their respective Affiliated Companies.

Any person or entity purchasing or otherwise acquiring any interest in any shares of the Corporation shall be deemed to have notice of and to have consented to the provisions of this ARTICLE XII.

To the extent that any provision of this ARTICLE XII is found to be invalid or unenforceable, such invalidity or unenforceability shall not affect the validity or enforceability of any other provision of this ARTICLE XII.

ZQ|CERT#|COY|CLS|RGSTRY|ACCT#|TRANSTYPER|RUN#|TRANS#

COMMON STOCK
PAR VALUE \$0.0001

COMMON STOCK

UNITY BIOTECHNOLOGY

Certificate Number
ZQ00000000

Shares
*****000000*****

UNITY BIOTECHNOLOGY, INC.
INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE

SEE REVERSE FOR CERTAIN DEFINITIONS
CUSIP 91381U 10 1

THIS CERTIFIES THAT

**MR. SAMPLE & MRS. SAMPLE &
MR. SAMPLE & MRS. SAMPLE**

is the owner of

*****ZERO HUNDRED THOUSAND
ZERO HUNDRED AND ZERO*****

THIS CERTIFICATE IS TRANSFERABLE IN CITIES DESIGNATED BY THE TRANSFER AGENT, AVAILABLE ONLINE AT www.computershare.com

FULLY-PAID AND NON-ASSESSABLE SHARES OF COMMON STOCK OF

Unity Biotechnology, Inc. (hereinafter called the "Company"), transferable on the books of the Company in person or by duly authorized attorney, upon surrender of this Certificate properly endorsed. This Certificate and the shares represented hereby, are issued and shall be held subject to all of the provisions of the Certificate of Incorporation, as amended, and the Bylaws, as amended, of the Company (copies of which are on file with the Company and with the Transfer Agent), to all of which each holder, by acceptance hereof, assents. This Certificate is not valid unless countersigned and registered by the Transfer Agent and Registrar.

Witness the facsimile seal of the Company and the facsimile signatures of its duly authorized officers.


President

Secretary



DATED DD-MMM-YYYY
COUNTERSIGNED AND REGISTERED:
COMPUTERSHARE TRUST COMPANY, N.A.
TRANSFER AGENT AND REGISTRAR.

By _____ AUTHORIZED SIGNATURE

UNITY BIOTECHNOLOGY

PO Box 4004, Providence, RI 02940-3004

MR. A. SAMPLE
REGISTRATION # AN71

4001
4002
4003
4004



CUSIP IDENTIFIER	XXXXXXXXXX
Holder ID	XXXXXXXXXX
Insurance Value	1,000,000.00
Number of Shares	123456
DTC	12345678 123456789012345
Certificate Numbers	
Num/No. Denom. Total	
12345678901234567890	1 1 1
12345678901234567890	2 2 2
12345678901234567890	3 3 3
12345678901234567890	4 4 4
12345678901234567890	5 5 5
12345678901234567890	6 6 6
Total Transaction	7

1234567

UNITY BIOTECHNOLOGY, INC

THE COMPANY WILL FURNISH WITHOUT CHARGE TO EACH SHAREHOLDER WHO SO REQUESTS, A SUMMARY OF THE POWERS, DESIGNATIONS, PREFERENCES AND RELATIVE, PARTICIPATING, OPTIONAL OR OTHER SPECIAL RIGHTS OF EACH CLASS OF STOCK OF THE COMPANY AND THE QUALIFICATIONS, LIMITATIONS OR RESTRICTIONS OF SUCH PREFERENCES AND RIGHTS, AND THE VARIATIONS IN RIGHTS, PREFERENCES AND LIMITATIONS DETERMINED FOR EACH SERIES, WHICH ARE FIXED BY THE CERTIFICATE OF INCORPORATION OF THE COMPANY, AS AMENDED, AND THE RESOLUTIONS OF THE BOARD OF DIRECTORS OF THE COMPANY, AND THE AUTHORITY OF THE BOARD OF DIRECTORS TO DETERMINE VARIATIONS FOR FUTURE SERIES. SUCH REQUEST MAY BE MADE TO THE OFFICE OF THE SECRETARY OF THE COMPANY OR TO THE TRANSFER AGENT. THE BOARD OF DIRECTORS MAY REQUIRE THE OWNER OF A LOST OR DESTROYED STOCK CERTIFICATE, OR HIS LEGAL REPRESENTATIVES, TO GIVE THE COMPANY A BOND TO INDEMNIFY IT AND ITS TRANSFER AGENTS AND REGISTRARS AGAINST ANY CLAIM THAT MAY BE MADE AGAINST THEM ON ACCOUNT OF THE ALLEGED LOSS OR DESTRUCTION OF ANY SUCH CERTIFICATE.

The following abbreviations, when used in the inscription on the face of this certificate, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM - as tenants in common	UNIF GIFT MIN ACT -Custodian	(Cust)	(Minor)
TEN ENT - as tenants by the entireties	under Uniform Gifts to Minors Act.....		(State)
JT TEN - as joint tenants with right of survivorship and not as tenants in common	UNIF TRF MIN ACT -Custodian (until age)	(Cust)	(State)
under Uniform Transfers to Minors Act	(Minor)	(State)

Additional abbreviations may also be used though not in the above list.

For value received, _____ hereby sell, assign and transfer unto PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER OF ASSIGNEE

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING POSTAL ZIP CODE, OF ASSIGNEE)

_____ Shares
of the common stock represented by the within Certificate, and do hereby irrevocably constitute and appoint _____ Attorney
to transfer the said stock on the books of the within-named Company with full power of substitution in the premises.

Dated: _____ 20____
Signature: _____
Signature: _____

Signature(s) Guaranteed: Medallion Guarantee Stamp

THE SIGNATURE(S) SHOULD BE GUARANTEED BY AN ELIGIBLE GUARANTOR INSTITUTION (Banks, Stockbrokers, Savings and Loan Associations and Credit Unions) WITH MEMBERSHIP IN AN APPROVED SIGNATURE GUARANTEE MEDALLION PROGRAM, PURSUANT TO S.E.C. RULE 17A-15

Notice: The signature to this assignment must correspond with the name as written upon the face of the certificate, in every particular, without alteration or enlargement, or any change whatever.

SECURITY INSTRUCTIONS
THIS IS WATERMARKED PAPER. DO NOT ACCEPT WITHOUT NOTING WATERMARK. HOLD TO LIGHT TO VERIFY WATERMARK.



The IRS requires that the named transfer agent ("we") report the cost basis of certain shares or units acquired after January 1, 2011. If your shares or units are covered by the legislation, and you requested to sell or transfer the shares or units using a specific cost basis calculation method, then we have processed as you requested. If you did not specify a cost basis calculation method, then we have defaulted to the first in, first out (FIFO) method. Please consult your tax advisor if you need additional information about cost basis.

If you do not keep in contact with the issuer or do not have any activity in your account for the time period specified by state law, your property may become subject to state unclaimed property laws and transferred to the appropriate state.

1534281

LATHAM & WATKINS^{LLP}

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 Menlo Park, California 94025
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Hong Kong	Seoul
Houston	Shanghai
London	Silicon Valley
Los Angeles	Singapore
Madrid	Tokyo
Milan	Washington, D.C.

April 23, 2018

Unity Biotechnology, Inc.
 3280 Bayshore Blvd
 Brisbane, California 94005

Re: Form S-1 Registration Statement File No. 333-224163
 Initial Public Offering of up to 5,750,000 Shares of Common Stock
 of Unity Biotechnology, Inc.

Ladies and Gentlemen:

We have acted as special counsel to Unity Biotechnology, Inc., a Delaware corporation (the “**Company**”), in connection with the proposed issuance of up to 5,750,000 shares of common stock, \$0.0001 par value per share (the “**Shares**”). The Shares are included in a registration statement on Form S-1 under the Securities Act of 1933, as amended (the “**Act**”), filed with the Securities and Exchange Commission (the “**Commission**”) on April 5, 2018 (Registration No. 333-224163) (as amended, the “**Registration Statement**”). This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or related prospectus (the “**Prospectus**”), other than as expressly stated herein with respect to the issue of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein as to the General Corporation Law of the State of Delaware (the “**DGCL**”), and we express no opinion with respect to any other laws.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, when the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the purchasers and have been issued by

LATHAM & WATKINS LLP

the Company against payment therefor in the circumstances contemplated by the form of underwriting agreement most recently filed as an exhibit to the Registration Statement, the issue and sale of the Shares will have been duly authorized by all necessary corporate action of the Company, and the Shares will be validly issued, fully paid and nonassessable. In rendering the foregoing opinion, we have assumed that the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the DGCL.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as an exhibit to the Registration Statement and to the reference to our firm in the Prospectus under the heading "Legal Matters." In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Latham & Watkins LLP

**UNITY BIOTECHNOLOGY, INC.
2018 INCENTIVE AWARD PLAN**

**ARTICLE I.
PURPOSE**

The Plan's purpose is to enhance the Company's ability to attract, retain and motivate persons who make (or are expected to make) important contributions to the Company by providing these individuals with equity ownership opportunities.

**ARTICLE II.
DEFINITIONS**

As used in the Plan, the following words and phrases will have the meanings specified below, unless the context clearly indicates otherwise:

2.1 "**Administrator**" means the Board or a Committee to the extent that the Board's powers or authority under the Plan have been delegated to such Committee. With reference to the Board's or a Committee's powers or authority under the Plan that have been delegated to one or more officers pursuant to Section 4.2, the term "Administrator" shall refer to such officer(s) unless and until such delegation has been revoked.

2.2 "**Applicable Law**" means any applicable law, including without limitation: (a) provisions of the Code, the Securities Act, the Exchange Act and any rules or regulations thereunder; (b) corporate, securities, tax or other laws, statutes, rules, requirements or regulations, whether federal, state, local or foreign; and (c) rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded.

2.3 "**Award**" means an Option, Stock Appreciation Right, Restricted Stock award, Restricted Stock Unit award, Performance Bonus Award, Performance Stock Units award, Dividend Equivalents award or Other Stock or Cash Based Award granted to a Participant under the Plan.

2.4 "**Award Agreement**" means an agreement evidencing an Award, which may be written or electronic, that contains such terms and conditions as the Administrator determines, consistent with and subject to the terms and conditions of the Plan.

2.5 "**Board**" means the Board of Directors of the Company.

2.6 "**Change in Control**" shall mean and includes each of the following:

(a) A transaction or series of transactions (other than an offering of Common Stock to the general public through a registration statement filed with the Securities and Exchange Commission) whereby any "person" or related "group" of "persons" (as such terms are used in Sections 13(d) and 14(d)(2) of the Exchange Act) directly or indirectly acquires beneficial ownership (within the meaning of Rules 13d-3 and 13d-5 under the Exchange Act) of securities of the Company possessing more than 50% of the total combined voting power of the Company's securities outstanding immediately after such acquisition; provided, however, that the following acquisitions shall not constitute a Change in Control: (i) any acquisition by the Company or any of its Subsidiaries; (ii) any acquisition by an employee benefit plan maintained by the Company or any of its Subsidiaries, (iii) any acquisition which complies with Sections 2.6(c)(i), 2.6(c)(ii) and 2.6(c)(iii); or (iv) in respect of an Award held by a particular Participant, any acquisition by the Participant or any group of persons including the Participant (or any entity controlled by the Participant or any group of persons including the Participant); or

(b) The Incumbent Directors cease for any reason to constitute a majority of the Board;

(c) The consummation by the Company (whether directly involving the Company or indirectly involving the Company through one or more intermediaries) of (x) a merger, consolidation, reorganization, or business combination, (y) a sale or other disposition of all or substantially all of the Company's assets in any single transaction or series of related transactions or (z) the acquisition of assets or stock of another entity, in each case other than a transaction:

(i) which results in the Company's voting securities outstanding immediately before the transaction continuing to represent (either by remaining outstanding or by being converted into voting securities of the Company or the person that, as a result of the transaction, controls, directly or indirectly, the Company or owns, directly or indirectly, all or substantially all of the Company's assets or otherwise succeeds to the business of the Company (the Company or such person, the "Successor Entity")) directly or indirectly, at least a majority of the combined voting power of the Successor Entity's outstanding voting securities immediately after the transaction, and

(ii) after which no person or group beneficially owns voting securities representing 50% or more of the combined voting power of the Successor Entity; provided, however, that no person or group shall be treated for purposes of this Section 2.9(c)(ii) as beneficially owning 50% or more of the combined voting power of the Successor Entity solely as a result of the voting power held in the Company prior to the consummation of the transaction; and

(iii) after which at least a majority of the members of the board of directors (or the analogous governing body) of the Successor Entity were Board members at the time of the Board's approval of the execution of the initial agreement providing for such transaction; or

(d) The completion of a liquidation or dissolution of the Company.

Notwithstanding the foregoing, if a Change in Control constitutes a payment event with respect to any Award (or any portion of an Award) that provides for the deferral of compensation that is subject to Section 409A, to the extent required to avoid the imposition of additional taxes under Section 409A, the transaction or event described in subsection (a), (b), (c) or (d) with respect to such Award (or portion thereof) shall only constitute a Change in Control for purposes of the payment timing of such Award if such transaction also constitutes a "change in control event," as defined in Treasury Regulation Section 1.409A-3(i)(5).

The Administrator shall have full and final authority, which shall be exercised in its sole discretion, to determine conclusively whether a Change in Control has occurred pursuant to the above definition, the date of such Change in Control and any incidental matters relating thereto; provided that any exercise of authority in conjunction with a determination of whether a Change in Control is a "change in control event" as defined in Treasury Regulation Section 1.409A-3(i)(5) shall be consistent with such regulation.

2.7 "**Code**" means the U.S. Internal Revenue Code of 1986, as amended, and all regulations, guidance, compliance programs and other interpretative authority issued thereunder.

2.8 “**Committee**” means one or more committees or subcommittees of the Board, which may include one or more Company directors or executive officers, to the extent permitted by Applicable Law. To the extent required to comply with the provisions of Rule 16b-3, it is intended that each member of the Committee will be, at the time the Committee takes any action with respect to an Award that is subject to Rule 16b-3, a “non-employee director” within the meaning of Rule 16b-3; however, a Committee member’s failure to qualify as a “non-employee director” within the meaning of Rule 16b-3 will not invalidate any Award granted by the Committee that is otherwise validly granted under the Plan.

2.9 “**Common Stock**” means the common stock of the Company.

2.10 “**Company**” means Unity Biotechnology, Inc., a Delaware corporation, or any successor.

2.11 “**Consultant**” means any person, including any adviser, engaged by the Company or its parent or Subsidiary to render services to such entity if the consultant or adviser: (i) renders bona fide services to the Company; (ii) renders services not in connection with the offer or sale of securities in a capital-raising transaction and does not directly or indirectly promote or maintain a market for the Company’s securities; and (iii) is a natural person.

2.12 “**Designated Beneficiary**” means the beneficiary or beneficiaries the Participant designates, in a manner the Company determines, to receive amounts due or exercise the Participant’s rights if the Participant dies. Without a Participant’s effective designation, “Designated Beneficiary” will mean the Participant’s estate.

2.13 “**Director**” means a Board member.

2.14 “**Disability**” means a permanent and total disability under Section 22(e)(3) of the Code.

2.15 “**Dividend Equivalents**” means a right granted to a Participant to receive the equivalent value (in cash or Shares) of dividends paid on a specified number of Shares. Such Dividend Equivalent shall be converted to cash or additional Shares, or a combination of cash and Shares, by such formula and at such time and subject to such limitations as may be determined by the Administrator.

2.16 “**Effective Date**” has the meaning set forth in Section 11.3.

2.17 “**Employee**” means any employee of the Company or any of its Subsidiaries.

2.18 “**Equity Restructuring**” means a nonreciprocal transaction between the Company and its stockholders, such as a stock dividend, stock split (including a reverse stock split), spin-off or recapitalization through a large, nonrecurring cash dividend, that affects the number or kind of Shares (or other Company securities) or the share price of Common Stock (or other Company securities) and causes a change in the per share value of the Common Stock underlying outstanding Awards.

2.19 “**Exchange Act**” means the U.S. Securities Exchange Act of 1934, as amended, and all regulations, guidance and other interpretative authority issued thereunder.

2.20 “**Fair Market Value**” means, as of any date, the value of a Share determined as follows: (i) if the Common Stock is listed on any established stock exchange, the value of a Share will be the closing sales price for a Share as quoted on such exchange for such date, or if no sale occurred on such date, the last day preceding such date during which a sale occurred, as reported in *The Wall Street Journal* or another source the Administrator deems reliable; (ii) if the Common Stock is not listed on an established stock exchange but is quoted on a national market or other quotation system, the value of a

Share will be the closing sales price for a Share on such date, or if no sales occurred on such date, then on the last date preceding such date during which a sale occurred, as reported in The Wall Street Journal or another source the Administrator deems reliable; or (iii) if the Common Stock is not listed on any established stock exchange or quoted on a national market or other quotation system, the value established by the Administrator in its sole discretion. Notwithstanding the foregoing, with respect to any Award granted after the effectiveness of the Company's registration statement relating to its initial public offering and prior to the Public Trading Date, the Fair Market Value shall mean the initial public offering price of a Share as set forth in the Company's final prospectus relating to its initial public offering filed with the Securities and Exchange Commission.

2.21 "**Greater Than 10% Stockholder**" means an individual then owning (within the meaning of Section 424(d) of the Code) more than 10% of the total combined voting power of all classes of stock of the Company or any parent corporation or subsidiary corporation of the Company, as determined in accordance with in Section 424(e) and (f) of the Code, respectively.

2.22 "**Incentive Stock Option**" means an Option that meets the requirements to qualify as an "incentive stock option" as defined in Section 422 of the Code.

2.23 "**Incumbent Directors**" shall mean for any period of 12 consecutive months, individuals who, at the beginning of such period, constitute the Board together with any new Director(s) (other than a Director designated by a person who shall have entered into an agreement with the Company to effect a transaction described in Section 2.6(a) or 2.6(c)) whose election or nomination for election to the Board was approved by a vote of at least a majority (either by a specific vote or by approval of the proxy statement of the Company in which such person is named as a nominee for Director without objection to such nomination) of the Directors then still in office who either were Directors at the beginning of the 12-month period or whose election or nomination for election was previously so approved. No individual initially elected or nominated as a director of the Company as a result of an actual or threatened election contest with respect to Directors or as a result of any other actual or threatened solicitation of proxies by or on behalf of any person other than the Board shall be an Incumbent Director.

2.24 "**Nonqualified Stock Option**" means an Option that is not an Incentive Stock Option.

2.25 "**Option**" means a right granted under Article VI to purchase a specified number of Shares at a specified price per Share during a specified time period. An Option may be either an Incentive Stock Option or a Nonqualified Stock Option.

2.26 "**Other Stock or Cash Based Awards**" means cash awards, awards of Shares, and other awards valued wholly or partially by referring to, or are otherwise based on, Shares or other property.

2.27 "**Overall Share Limit**" means the sum of (i) 4,289,936 Shares; (ii) any Shares that are subject to Prior Plan Awards that become available for issuance under the Plan pursuant to Article V; and (iii) an annual increase on the first day of each year beginning in 2019 and ending in 2028, equal to the lesser of (A) 5% of the Shares outstanding (on an as-converted basis) on the last day of the immediately preceding fiscal year and (B) such smaller number of Shares as determined by the Board.

2.28 "**Participant**" means a Service Provider who has been granted an Award.

2.29 "**Performance Bonus Award**" has the meaning set forth in Section 8.3.

2.30 “**Performance Stock Unit**” means a right granted to a Participant pursuant to Section 8.1 and subject to Section 8.2, to receive Shares, the payment of which is contingent upon achieving certain performance goals or other performance-based targets established by the Administrator.

2.31 “**Permitted Transferee**” shall mean, with respect to a Participant, any “family member” of the Participant, as defined in the General Instructions to Form S-8 Registration Statement under the Securities Act (or any successor form thereto), or any other transferee specifically approved by the Administrator after taking into account Applicable Law.

2.32 “**Plan**” means this 2018 Incentive Award Plan.

2.33 “**Prior Plan**” means the Company’s 2013 Equity Incentive Plan.

2.34 “**Prior Plan Award**” means an award outstanding under the Prior Plan as of the Effective Date.

2.35 “**Public Trading Date**” shall mean the first date upon which Common Stock is listed (or approved for listing) upon notice of issuance on any securities exchange or designated (or approved for designation) upon notice of issuance as a national market security on an interdealer quotation system.

2.36 “**Restricted Stock**” means Shares awarded to a Participant under Article VII, subject to certain vesting conditions and other restrictions.

2.37 “**Restricted Stock Unit**” means an unfunded, unsecured right to receive, on the applicable settlement date, one Share or an amount in cash or other consideration determined by the Administrator to be of equal value as of such settlement date, subject to certain vesting conditions and other restrictions.

2.38 “**Rule 16b-3**” means Rule 16b-3 promulgated under the Exchange Act.

2.39 “**Section 409A**” means Section 409A of the Code.

2.40 “**Securities Act**” means the Securities Act of 1933, as amended, and all regulations, guidance and other interpretative authority issued thereunder.

2.41 “**Service Provider**” means an Employee, Consultant or Director.

2.42 “**Shares**” means shares of Common Stock.

2.43 “**Stock Appreciation Right**” or “**SAR**” means a right granted under Article VI to receive a payment equal to the excess of the Fair Market Value of a specified number of Shares on the date the right is exercised over the exercise price set forth in the applicable Award Agreement.

2.44 “**Subsidiary**” means any entity (other than the Company), whether domestic or foreign, in an unbroken chain of entities beginning with the Company if each of the entities other than the last entity in the unbroken chain beneficially owns, at the time of the determination, securities or interests representing at least 50% of the total combined voting power of all classes of securities or interests in one of the other entities in such chain.

2.45 “**Substitute Awards**” means Awards granted or Shares issued by the Company in assumption of, or in substitution or exchange for, awards previously granted, or the right or obligation to make future awards, in each case by a company or other entity acquired by the Company or any Subsidiary or with which the Company or any Subsidiary combines.

2.46 “**Termination of Service**” means:

(a) As to a Consultant, the time when the engagement of a Participant as a Consultant to the Company or a Subsidiary is terminated for any reason, with or without cause, including, without limitation, by resignation, discharge, death or retirement, but excluding terminations where the Consultant simultaneously commences or remains in employment or service with the Company or any Subsidiary.

(b) As to a Non-Employee Director, the time when a Participant who is a Non-Employee Director ceases to be a Director for any reason, including, without limitation, a termination by resignation, failure to be elected, death or retirement, but excluding terminations where the Participant simultaneously commences or remains in employment or service with the Company or any Subsidiary.

(c) As to an Employee, the time when the employee-employer relationship between a Participant and the Company or any Subsidiary is terminated for any reason, including, without limitation, a termination by resignation, discharge, death, disability or retirement; but excluding terminations where the Participant simultaneously commences or remains in employment or service with the Company or any Subsidiary.

The Company, in its sole discretion, shall determine the effect of all matters and questions relating to any Termination of Service, including, without limitation, whether a Termination of Service has occurred, whether a Termination of Service resulted from a discharge for “cause” and all questions of whether particular leaves of absence constitute a Termination of Service. For purposes of the Plan, a Participant’s employee-employer relationship or consultancy relationship shall be deemed to be terminated in the event that the Subsidiary employing or contracting with such Participant ceases to remain a Subsidiary following any merger, sale of stock or other corporate transaction or event (including, without limitation, a spin-off), even though the Participant may subsequently continue to perform services for that entity.

ARTICLE III. ELIGIBILITY

Service Providers are eligible to be granted Awards under the Plan, subject to the limitations described herein. No Service Provider shall have any right to be granted an Award pursuant to the Plan and neither the Company nor the Administrator is obligated to treat Service Providers, Participants or any other persons uniformly.

ARTICLE IV. ADMINISTRATION AND DELEGATION

4.1 Administration.

(a) The Plan is administered by the Administrator. The Administrator has authority to determine which Service Providers receive Awards, grant Awards and set Award terms and conditions, subject to the conditions and limitations in the Plan. The Administrator also has the authority to take all actions and make all determinations under the Plan, to interpret the Plan and Award Agreements and to adopt, amend and repeal Plan administrative rules, guidelines and practices as it deems advisable. The

Administrator may correct defects and ambiguities, supply omissions, reconcile inconsistencies in the Plan or any Award and make all other determinations that it deems necessary or appropriate to administer the Plan and any Awards. The Administrator (and each member thereof) is entitled to, in good faith, rely or act upon any report or other information furnished to it, him or her by any officer or other employee of the Company or any Subsidiary, the Company's independent certified public accountants, or any executive compensation consultant or other professional retained by the Company to assist in the administration of the Plan. The Administrator's determinations under the Plan are in its sole discretion and will be final, binding and conclusive on all persons having or claiming any interest in the Plan or any Award.

(b) Without limiting the foregoing, the Administrator has the exclusive power, authority and sole discretion to: (i) designate Participants; (ii) determine the type or types of Awards to be granted to each Participant; (iii) determine the number of Awards to be granted and the number of Shares to which an Award will relate; (iv) subject to the limitations in the Plan, determine the terms and conditions of any Award and related Award Agreement, including, but not limited to, the exercise price, grant price, purchase price, any performance criteria, any restrictions or limitations on the Award, any schedule for vesting, lapse of forfeiture restrictions or restrictions on the exercisability of an Award, and accelerations, waivers or amendments thereof; (v) determine whether, to what extent, and under what circumstances an Award may be settled in, or the exercise price of an Award may be paid in cash, Shares, or other property, or an Award may be canceled, forfeited, or surrendered; and (vi) make all other decisions and determinations that may be required pursuant to the Plan or as the Administrator deems necessary or advisable to administer the Plan.

4.2 Delegation of Authority. To the extent permitted by Applicable Law, the Board or any Committee may delegate any or all of its powers under the Plan to one or more Committees or officers of the Company or any of its Subsidiaries; provided, however, that in no event shall an officer of the Company or any of its Subsidiaries be delegated the authority to grant Awards to, or amend Awards held by, the following individuals: (a) individuals who are subject to Section 16 of the Exchange Act, or (b) officers of the Company or any of its Subsidiaries or Directors to whom authority to grant or amend Awards has been delegated hereunder. Any delegation hereunder shall be subject to the restrictions and limits that the Board or Committee specifies at the time of such delegation or that are otherwise included in the applicable organizational documents, and the Board or Committee, as applicable, may at any time rescind the authority so delegated or appoint a new delegatee. At all times, the delegatee appointed under this Section 4.2 shall serve in such capacity at the pleasure of the Board or the Committee, as applicable, and the Board or the Committee may abolish any committee at any time and re-vest in itself any previously delegated authority. Further, regardless of any delegation, the Board or a Committee may, in its discretion, exercise any and all rights and duties as the Administrator under the Plan delegated thereby, except with respect to Awards that are required to be determined in the sole discretion of the Committee under the rules of any securities exchange or automated quotation system on which the Shares are listed, quoted or traded.

ARTICLE V. STOCK AVAILABLE FOR AWARDS

5.1 Number of Shares. Subject to adjustment under Article IX and the terms of this Article V, Awards may be made under the Plan covering up to the Overall Share Limit. As of the Effective Date, the Company will cease granting awards under the Prior Plan; however, Prior Plan Awards will remain subject to the terms of the Prior Plan. Shares issued or delivered under the Plan may consist of authorized but unissued Shares, Shares purchased on the open market or treasury Shares.

5.2 Share Recycling.

(a) If all or any part of an Award or Prior 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, canceled without having been fully exercised or forfeited, in any case, in a manner that results in the Company acquiring Shares covered by the Award or Prior Plan Award at a price not greater than the price (as adjusted to reflect any Equity Restructuring) paid by the Participant for such Shares or not issuing any Shares covered by the Award or Prior Plan Award, the unused Shares covered by the Award or Prior Plan Award will, as applicable, become or again be available for Awards under the Plan. The payment of Dividend Equivalents in cash in conjunction with any outstanding Awards or Prior Plan Awards shall not count against the Overall Share Limit.

(b) In addition, the following Shares shall be available for future grants of Awards: (i) Shares tendered by a Participant or withheld by the Company in payment of the exercise price of an Option or any stock option granted under the Prior Plan; (ii) Shares tendered by the Participant or withheld by the Company to satisfy any tax withholding obligation with respect to an Award or any award granted under the Prior Plan; (iii) Shares subject to a Stock Appreciation Right that are not issued in connection with the stock settlement of the Stock Appreciation Right on exercise thereof; and (iv) Shares purchased on the open market by the Company with the cash proceeds received from the exercise of Options. Notwithstanding the provisions of this Section 5.2(b), no Shares may again be optioned, granted or awarded pursuant to an Incentive Stock Option if such action would cause such Option to fail to qualify as an incentive stock option under Section 422 of the Code.

5.3 Incentive Stock Option Limitations. Notwithstanding anything to the contrary herein, no more than 60,000,000 Shares (as adjusted to reflect any Equity Restructuring) may be issued pursuant to the exercise of Incentive Stock Options.

5.4 Substitute Awards. In connection with an entity's merger or consolidation with the Company or any Subsidiary or the Company's or any Subsidiary's acquisition of an entity's property or stock, the Administrator may grant Awards in substitution for any options or other stock or stock-based awards granted before such merger or consolidation by such entity or its affiliate. Substitute Awards may be granted on such terms and conditions as the Administrator deems appropriate, notwithstanding limitations on Awards in the Plan. Substitute Awards will not count against the Overall Share Limit (nor shall Shares subject to a Substitute Award be added to the Shares available for Awards under the Plan as provided above), except that Shares acquired by exercise of substitute Incentive Stock Options will count against the maximum number of Shares that may be issued pursuant to the exercise of Incentive Stock Options under the Plan. Additionally, in the event that a company acquired by the Company or any Subsidiary or with which the Company or any Subsidiary combines has shares available under a pre-existing plan approved by stockholders and not adopted in contemplation of such acquisition or combination, the shares available for grant pursuant to the terms of such pre-existing plan (as appropriately adjusted to reflect the transaction) may be used for Awards under the Plan and shall not reduce the Shares authorized for grant under the Plan (and Shares subject to such Awards may again become available for Awards under the Plan as provided under Section 5.2 above); provided that Awards using such available shares shall not be made after the date awards or grants could have been made under the terms of the pre-existing plan, absent the acquisition or combination, and shall only be made to individuals who were not employees or directors of the Company or any of its Subsidiaries prior to such acquisition or combination.

5.5 Non-Employee Director Award Limit. Notwithstanding any provision to the contrary in the Plan or in any policy of the Company regarding non-employee director compensation, the sum of the grant date fair value (determined as of the grant date in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, or any successor thereto) of all equity-based

Awards and the maximum amount that may become payable pursuant to all cash-based Awards that may be granted to a Service Provider as compensation for services as a Non-Employee Director during any calendar year shall not exceed \$1,000,000 for such Service Provider's first year of service as a Non-Employee Director and \$500,000 for each year thereafter.

ARTICLE VI.
STOCK OPTIONS AND STOCK APPRECIATION RIGHTS

6.1 General. The Administrator may grant Options or Stock Appreciation Rights to one or more Service Providers, subject to such terms and conditions not inconsistent with the Plan as the Administrator shall determine. The Administrator will determine the number of Shares covered by each Option and Stock Appreciation Right, the exercise price of each Option and Stock Appreciation Right and the conditions and limitations applicable to the exercise of each Option and Stock Appreciation Right. A Stock Appreciation Right will entitle the Participant (or other person entitled to exercise the Stock Appreciation Right) to receive from the Company upon exercise of the exercisable portion of the Stock Appreciation Right an amount determined by multiplying the excess, if any, of the Fair Market Value of one Share on the date of exercise over the exercise price per Share of the Stock Appreciation Right by the number of Shares with respect to which the Stock Appreciation Right is exercised, subject to any limitations of the Plan or that the Administrator may impose and payable in cash, Shares valued at Fair Market Value on the date of exercise or a combination of the two as the Administrator may determine or provide in the Award Agreement.

6.2 Exercise Price. The Administrator will establish each Option's and Stock Appreciation Right's exercise price and specify the exercise price in the Award Agreement. Subject to Section 6.6, the exercise price will not be less than 100% of the Fair Market Value on the grant date of the Option or Stock Appreciation Right. Notwithstanding the foregoing, in the case of an Option or Stock Appreciation Right that is a Substitute Award, the exercise price per share of the Shares subject to such Option or Stock Appreciation Right, as applicable, may be less than the Fair Market Value per share on the date of grant; provided that the exercise price of any Substitute Award shall be determined in accordance with the applicable requirements of Section 424 and 409A of the Code.

6.3 Duration of Options. Subject to Section 6.6, each Option or Stock Appreciation Right will be exercisable at such times and as specified in the Award Agreement, provided that the term of an Option or Stock Appreciation Right will not exceed ten years; provided, further, that, unless otherwise determined by the Administrator, (a) no portion of an Option or Stock Appreciation Right which is unexercisable at a Participant's Termination of Service shall thereafter become exercisable and (b) the portion of an Option or Stock Appreciation Right that is unexercisable at a Participant's Termination of Service shall automatically expire on the date of such Termination of Service. Notwithstanding the foregoing, if the Participant, prior to the end of the term of an Option or Stock Appreciation Right, commits an act of "cause" (as determined by the Administrator), or violates any non-competition, non-solicitation or confidentiality provisions of any employment contract, confidentiality and nondisclosure agreement or other agreement between the Participant and the Company or any of its Subsidiaries, the right to exercise the Option or Stock Appreciation Right, as applicable, may be terminated by the Company and the Company may suspend the Participant's right to exercise the Option or Stock Appreciation Right when it reasonably believes that the Participant may have participated in any such act or violation.

6.4 Exercise. Options and Stock Appreciation Rights may be exercised by delivering to the Company (or such other person or entity designated by the Administrator) a notice of exercise, in a form and manner the Company approves (which may be written, electronic or telephonic and may contain representations and warranties deemed advisable by the Administrator), signed or authenticated by the

person authorized to exercise the Option or Stock Appreciation Right, together with, as applicable, payment in full of (a) the exercise price for the number of Shares for which the Option is exercised in a manner specified in Section 6.5 and (b) all applicable taxes in a manner specified in Section 10.5. The Administrator may, in its discretion, limit exercise with respect to fractional Shares and require that any partial exercise of an Option or Stock Appreciation Right be with respect to a minimum number of Shares.

6.5 Payment Upon Exercise. The Administrator shall determine the methods by which payment of the exercise price of an Option shall be made, including, without limitation:

(a) cash, check or wire transfer of immediately available funds; provided that the Company may limit the use of one of the foregoing methods if one or more of the methods below is permitted;

(b) if there is a public market for Shares at the time of exercise, unless the Company otherwise determines, (A) delivery (including electronically or telephonically to the extent permitted by the Company) of a notice that the Participant has placed a market sell order with a broker acceptable to the Company with respect to Shares then issuable upon exercise of the Option and that the broker has been directed to deliver promptly to the Company funds sufficient to pay the exercise price, or (B) the Participant's delivery to the Company of a copy of irrevocable and unconditional instructions to a broker acceptable to the Company to deliver promptly to the Company an amount sufficient to pay the exercise price by cash, wire transfer of immediately available funds or check; provided that such amount is paid to the Company at such time as may be required by the Company;

(c) to the extent permitted by the Administrator, delivery (either by actual delivery or attestation) of Shares owned by the Participant valued at their Fair Market Value on the date of delivery;

(d) to the extent permitted by the Administrator, surrendering Shares then issuable upon the Option's exercise valued at their Fair Market Value on the exercise date;

(e) to the extent permitted by the Administrator, delivery of a promissory note or any other lawful consideration; or

(f) to the extent permitted by the Administrator, any combination of the above payment forms.

6.6 Additional Terms of Incentive Stock Options. The Administrator may grant Incentive Stock Options only to employees of the Company, any of its present or future parent or subsidiary corporations, as defined in Sections 424(e) or (f) of the Code, respectively, and any other entities the employees of which are eligible to receive Incentive Stock Options under the Code. If an Incentive Stock Option is granted to a Greater Than 10% Stockholder, the exercise price will not be less than 110% of the Fair Market Value on the Option's grant date, and the term of the Option will not exceed five years. All Incentive Stock Options (and Award Agreements related thereto) will be subject to and construed consistently with Section 422 of the Code. By accepting an Incentive Stock Option, the Participant agrees to give prompt notice to the Company of dispositions or other transfers (other than in connection with a Change in Control) of Shares acquired under the Option made within (a) two years from the grant date of the Option or (b) one year after the transfer of such Shares to the Participant, specifying the date of the disposition or other transfer and the amount the Participant realized, in cash, other property, assumption of indebtedness or other consideration, in such disposition or other transfer. Neither the Company nor the Administrator will be liable to a Participant, or any other party, if an Incentive Stock Option fails or

ceases to qualify as an “incentive stock option” under Section 422 of the Code. Any Incentive Stock Option or portion thereof that fails to qualify as an “incentive stock option” under Section 422 of the Code for any reason, including becoming exercisable with respect to Shares having a fair market value exceeding the \$100,000 limitation under Treasury Regulation Section 1.422-4, will be a Nonqualified Stock Option.

ARTICLE VII. RESTRICTED STOCK; RESTRICTED STOCK UNITS

7.1 General. The Administrator may grant Restricted Stock, or the right to purchase Restricted Stock, to any Service Provider, subject to forfeiture or the Company’s right to repurchase all or part of such shares at their issue price or other stated or formula price from the Participant if conditions the Administrator specifies in the Award Agreement are not satisfied before the end of the applicable restriction period or periods that the Administrator establishes for such Award. In addition, the Administrator may grant Restricted Stock Units, which may be subject to vesting and forfeiture conditions during the applicable restriction period or periods, as set forth in an Award Agreement, to Service Providers. The Administrator shall establish the purchase price, if any, and form of payment for Restricted Stock and Restricted Stock Units; provided, however, that if a purchase price is charged, such purchase price shall be no less than the par value, if any, of the Shares to be purchased, unless otherwise permitted by Applicable Law. In all cases, legal consideration shall be required for each issuance of Restricted Stock and Restricted Stock Units to the extent required by Applicable Law. The Award Agreement for each Restricted Stock and Restricted Stock Unit Award shall set forth the terms and conditions not inconsistent with the Plan as the Administrator shall determine.

7.2 Restricted Stock.

(a) *Stockholder Rights*. Unless otherwise determined by the Administrator, each Participant holding shares of Restricted Stock will be entitled to all the rights of a stockholder with respect to such Shares, subject to the restrictions in the Plan and/or the applicable Award Agreement, including the right to receive all dividends and other distributions paid or made with respect to the Shares to the extent such dividends and other distributions have a record date that is on or after the date on which such Participant becomes the record holder of such Shares; provided, however, that with respect to a share of Restricted Stock subject to restrictions or vesting conditions as described in Section 8.3, except in connection with a spin-off or other similar event as otherwise permitted under Section 9.2, dividends which are paid to Company stockholders prior to the removal of restrictions and satisfaction of vesting conditions shall only be paid to the Participant to the extent that the restrictions are subsequently removed and the vesting conditions are subsequently satisfied and the share of Restricted Stock vests.

(b) *Stock Certificates*. The Company may require that the Participant deposit in escrow with the Company (or its designee) any stock certificates issued in respect of shares of Restricted Stock, together with a stock power endorsed in blank.

(c) *Section 83(b) Election*. If a Participant makes an election under Section 83(b) of the Code to be taxed with respect to the Restricted Stock as of the date of transfer of the Restricted Stock rather than as of the date or dates upon which such Participant would otherwise be taxable under Section 83(a) of the Code, such Participant shall be required to deliver a copy of such election to the Company promptly after filing such election with the Internal Revenue Service along with proof of the timely filing thereof.

7.3 Restricted Stock Units. The Administrator may provide that settlement of Restricted Stock Units will occur upon or as soon as reasonably practicable after the Restricted Stock Units vest or will instead be deferred, on a mandatory basis or at the Participant’s election, subject to compliance with Applicable Law.

**ARTICLE VIII.
OTHER TYPES OF AWARDS**

8.1 General. The Administrator may grant Performance Stock Units awards, Performance Bonus Awards, Dividend Equivalents or Other Stock or Cash Based Awards, to one or more Service Providers, in such amounts and subject to such terms and conditions not inconsistent with the Plan as the Administrator shall determine.

8.2 Performance Stock Unit Awards. Each Performance Stock Units award shall be denominated in a number of Shares or in unit equivalents of Shares and/or units of value (including a dollar value of Shares) and may be linked to any one or more of performance or other specific criteria, including service to the Company or Subsidiaries, determined to be appropriate by the Administrator, in each case on a specified date or dates or over any period or periods determined by the Administrator. In making such determinations, the Administrator may consider (among such other factors as it deems relevant in light of the specific type of award) the contributions, responsibilities and other compensation of the particular Participant.

8.3 Performance Bonus Awards. Each right to receive a bonus granted under this Section 8.3 shall be denominated in the form of cash (but may be payable in cash, stock or a combination thereof) (a "**Performance Bonus Award**") and shall be payable upon the attainment of performance goals that are established by the Administrator and relate to one or more of performance or other specific criteria, including service to the Company or Subsidiaries, in each case on a specified date or dates or over any period or periods determined by the Administrator.

8.4 Dividend Equivalents. If the Administrator provides, an Award (other than an Option or Stock Appreciation Right) may provide a Participant with the right to receive Dividend Equivalents. Dividend Equivalents may be paid currently or credited to an account for the Participant, settled in cash or Shares and subject to the same restrictions on transferability and forfeitability as the Award with respect to which the Dividend Equivalents are granted and subject to other terms and conditions as set forth in the Award Agreement. Notwithstanding anything to the contrary herein, Dividend Equivalents with respect to an Award subject to vesting shall 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. All such Dividend Equivalents shall be paid at such time as the Administrator shall specify in the applicable Award Agreement.

8.5 Other Stock or Cash Based Awards. Other Stock or Cash Based Awards may be granted to Participants, including Awards entitling Participants to receive cash or Shares to be delivered in the future and annual or other periodic or long-term cash bonus awards (whether based on specified performance criteria or otherwise), in each case subject to any conditions and limitations in the Plan. Such Other Stock or Cash Based Awards will also be available as a payment form in the settlement of other Awards, as standalone payments and as payment in lieu of compensation to which a Participant is otherwise entitled. Other Stock or Cash Based Awards may be paid in Shares, cash or other property, as the Administrator determines. Subject to the provisions of the Plan, the Administrator will determine the terms and conditions of each Other Stock or Cash Based Award, including any purchase price, performance goal(s), transfer restrictions, and vesting conditions, which will be set forth in the applicable Award Agreement. Except in connection with a spin-off or other similar event as otherwise permitted under Article IX, dividends that are paid prior to vesting of any Other Stock or Cash Based Award shall only be paid to the applicable Participant to the extent that the vesting conditions are subsequently satisfied and the Other Stock or Cash Based Award vests.

**ARTICLE IX.
ADJUSTMENTS FOR CHANGES IN COMMON STOCK
AND CERTAIN OTHER EVENTS**

9.1 Equity Restructuring. In connection with any Equity Restructuring, notwithstanding anything to the contrary in this Article IX the Administrator will equitably adjust the terms of the Plan and each outstanding Award as it deems appropriate to reflect the Equity Restructuring, which may include (i) adjusting the number and type of securities subject to each outstanding Award and/or with respect to which Awards may be granted under the Plan (including, but not limited to, adjustments of the limitations in Article V hereof on the maximum number and kind of shares that may be issued); (ii) adjusting the terms and conditions of (including the grant or exercise price), and the performance goals or other criteria included in, outstanding Awards; and (iii) granting new Awards or making cash payments to Participants. The adjustments provided under this Section 9.1 will be nondiscretionary and final and binding on all interested parties, including the affected Participant and the Company; provided that the Administrator will determine whether an adjustment is equitable.

9.2 Corporate Transactions. In the event of any dividend or other distribution (whether in the form of cash, Common Stock, other securities, or other property), reorganization, merger, consolidation, split-up, spin off, combination, amalgamation, repurchase, recapitalization, liquidation, dissolution, or sale, transfer, exchange or other disposition of all or substantially all of the assets of the Company, or sale or exchange of Common Stock or other securities of the Company, Change in Control, issuance of warrants or other rights to purchase Common Stock or other securities of the Company, other similar corporate transaction or event, other unusual or nonrecurring transaction or event affecting the Company or its financial statements or any change in any Applicable Law or accounting principles, the Administrator, on such terms and conditions as it deems appropriate, either by the terms of the Award or by action taken prior to the occurrence of such transaction or event (except that action to give effect to a change in Applicable Law or accounting principles may be made within a reasonable period of time after such change) and either automatically or upon the Participant's request, is hereby authorized to take any one or more of the following actions whenever the Administrator determines that such action is appropriate in order to (x) prevent dilution or enlargement of the benefits or potential benefits intended by the Company to be made available under the Plan or with respect to any Award granted or issued under the Plan, (y) to facilitate such transaction or event or (z) give effect to such changes in Applicable Law or accounting principles:

(a) To provide for the cancellation of any such Award in exchange for either an amount of cash and/or other property with a value equal to the amount that could have been obtained upon the exercise or settlement of the vested portion of such Award or realization of the Participant's rights under the vested portion of such Award, as applicable; provided that, if the amount that could have been obtained upon the exercise or settlement of the vested portion of such Award or realization of the Participant's rights, in any case, is equal to or less than zero, then the Award may be terminated without payment;

(b) To provide that such Award shall vest and, to the extent applicable, be exercisable as to all Shares (or other property) covered thereby, notwithstanding anything to the contrary in the Plan or the provisions of such Award;

(c) To provide that such Award be assumed by the successor or survivor corporation or entity, or a parent or subsidiary thereof, or shall be substituted for by awards covering the stock of the successor or survivor corporation or entity, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kind of shares and/or applicable exercise or purchase price, in all cases, as determined by the Administrator;

(d) To make adjustments in the number and type of shares of Common Stock (or other securities or property) subject to outstanding Awards and/or with respect to which Awards may be granted under the Plan (including, but not limited to, adjustments of the limitations in Article V hereof on the maximum number and kind of shares which may be issued) and/or in the terms and conditions of (including the grant or exercise price), and the criteria included in, outstanding Awards;

(e) To replace such Award with other rights or property selected by the Administrator; and/or

(f) To provide that the Award will terminate and cannot vest, be exercised or become payable after the applicable event.

9.3 Change in Control.

(a) Notwithstanding any other provision of the Plan, in the event of a Change in Control, unless the Administrator elects to (i) terminate an Award in exchange for cash, rights or property, or (ii) cause an Award to become fully exercisable and no longer subject to any forfeiture restrictions prior to the consummation of a Change in Control, pursuant to Section 9.2, (A) such Award (other than any portion subject to performance-based vesting) shall continue in effect or be assumed or an equivalent Award substituted by the successor corporation or a parent or subsidiary of the successor corporation and (B) the portion of such Award subject to performance-based vesting shall be subject to the terms and conditions of the applicable Award Agreement and, in the absence of applicable terms and conditions, the Administrator's discretion.

(b) In the event that the successor corporation in a Change in Control refuses to assume or substitute for an Award (other than any portion subject to performance-based vesting), the Administrator shall cause such Award to become fully vested and, if applicable, exercisable immediately prior to the consummation of such transaction and all forfeiture restrictions on such Award to lapse and, to the extent unexercised upon the consummation of such transaction, to terminate in exchange for cash, rights or other property. The Administrator shall notify the Participant of any Award that becomes exercisable pursuant to the preceding sentence that such Award shall be fully exercisable for a period of fifteen (15) days from the date of such notice, contingent upon the occurrence of the Change in Control, and such Award shall terminate upon the consummation of the Change in Control in accordance with the preceding sentence.

(c) For the purposes of this Section 9.3, an Award shall be considered assumed if, following the Change in Control, the Award confers the right to purchase or receive, for each Share subject to the Award immediately prior to the Change in Control, the consideration (whether stock, cash, or other securities or property) received in the 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 Change in Control was 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 the Award, for each Share subject to an 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 Change in Control.

9.4 **Administrative Stand Still.** In the event of any pending stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Company assets to stockholders, or any other extraordinary transaction or change affecting the Shares or the share price of Common Stock (including any Equity Restructuring or any securities offering or other similar transaction) or for reasons of administrative convenience or to facilitate compliance with any Applicable Law, the Company may refuse to permit the exercise or settlement of one or more Awards for such period of time as the Company may determine to be reasonably appropriate under the circumstances.

9.5 **General.** Except as expressly provided in the Plan or the Administrator's action under the Plan, no Participant will have any rights due to any subdivision or consolidation of Shares of any class, dividend payment, increase or decrease in the number of Shares of any class or dissolution, liquidation, merger, or consolidation of the Company or other corporation. Except as expressly provided with respect to an Equity Restructuring under Section 9.1 above or the Administrator's action under the Plan, no issuance by the Company of Shares of any class, or securities convertible into Shares of any class, will affect, and no adjustment will be made regarding, the number of Shares subject to an Award or the Award's grant or exercise price. The existence of the Plan, any Award Agreements and the Awards granted hereunder will not affect or restrict in any way the Company's right or power to make or authorize (i) any adjustment, recapitalization, reorganization or other change in the Company's capital structure or its business, (ii) any merger, consolidation, spinoff, dissolution or liquidation of the Company or sale of Company assets or (iii) any sale or issuance of securities, including securities with rights superior to those of the Shares or securities convertible into or exchangeable for Shares.

ARTICLE X. PROVISIONS APPLICABLE TO AWARDS

10.1 Transferability.

(a) No Award may be sold, assigned, transferred, pledged or otherwise encumbered, either voluntarily or by operation of law, except by will or the laws of descent and distribution, or, subject to the Administrator's consent, pursuant to a domestic relations order, unless and until such Award has been exercised and/or the Shares underlying such Award have been issued, and all restrictions applicable to such Shares have lapsed. During the life of a Participant, Awards will be exercisable only by the Participant, unless it has been disposed of pursuant to a domestic relations order. After the death of a Participant, any exercisable portion of an Award may, prior to the time when such portion becomes unexercisable under the Plan or the applicable Award Agreement, be exercised by the Participant's personal representative or by any person empowered to do so under the deceased Participant's will or under the then-Applicable Law of descent and distribution. References to a Participant, to the extent relevant in the context, will include references to a transferee approved by the Administrator.

(b) Notwithstanding Section 10.1(a), the Administrator, in its sole discretion, may determine to permit a Participant or a Permitted Transferee of such Participant to transfer an Award other than an Incentive Stock Option (unless such Incentive Stock Option is intended to become a Nonqualified Stock Option) to any one or more Permitted Transferees of such Participant, subject to the following terms and conditions: (i) an Award transferred to a Permitted Transferee shall not be assignable or transferable by the Permitted Transferee other than (A) to another Permitted Transferee of the applicable Participant or (B) by will or the laws of descent and distribution or, subject to the consent of the Administrator, pursuant to a domestic relations order; (ii) an Award transferred to a Permitted Transferee shall continue to be subject to all the terms and conditions of the Award as applicable to the original Participant (other than the ability to further transfer the Award to any Person other than another Permitted Transferee of the applicable Participant); (iii) the Participant (or transferring Permitted Transferee) and

the receiving Permitted Transferee shall execute any and all documents requested by the Administrator, including, without limitation documents to (A) confirm the status of the transferee as a Permitted Transferee, (B) satisfy any requirements for an exemption for the transfer under Applicable Law and (C) evidence the transfer; and (iv) any transfer of an Award to a Permitted Transferee shall be without consideration, except as required by Applicable Law. In addition, and further notwithstanding Section 10.1(a), the Administrator, in its sole discretion, may determine to permit a Participant to transfer Incentive Stock Options to a trust that constitutes a Permitted Transferee if, under Section 671 of the Code and other Applicable Law, the Participant is considered the sole beneficial owner of the Incentive Stock Option while it is held in the trust.

(c) Notwithstanding Section 10.1(a), a Participant may, in the manner determined by the Administrator, designate a Designated Beneficiary. A Designated Beneficiary, legal guardian, legal representative, or other person claiming any rights pursuant to the Plan is subject to all terms and conditions of the Plan and any Award Agreement applicable to the Participant and any additional restrictions deemed necessary or appropriate by the Administrator. If the Participant is married or a domestic partner in a domestic partnership qualified under Applicable Law and resides in a community property state, a designation of a person other than the Participant's spouse or domestic partner, as applicable, as the Participant's Designated Beneficiary with respect to more than 50% of the Participant's interest in the Award shall not be effective without the prior written or electronic consent of the Participant's spouse or domestic partner. Subject to the foregoing, a beneficiary designation may be changed or revoked by a Participant at any time; provided that the change or revocation is delivered in writing to the Administrator prior to the Participant's death.

10.2 Documentation. Each Award will be evidenced in an Award Agreement in such form as the Administrator determines in its discretion. Each Award may contain such terms and conditions as are determined by the Administrator in its sole discretion, to the extent not inconsistent with those set forth in the Plan.

10.3 Discretion. Except as the Plan otherwise provides, each Award may be made alone or in addition or in relation to any other Award. The terms of each Award to a Participant need not be identical, and the Administrator need not treat Participants or Awards (or portions thereof) uniformly.

10.4 Changes in Participant's Status. The Administrator will determine how the disability, death, retirement, authorized leave of absence or any other change or purported change in a Participant's Service Provider status affects an Award and the extent to which, and the period during which, the Participant, the Participant's legal representative, conservator, guardian or Designated Beneficiary may exercise rights under the Award, if applicable. Except to the extent otherwise required by law or expressly authorized by the Company or by the Company's written policy on leaves of absence, no Service credit shall be given for vesting purposes for any period the Participant is on a leave of absence.

10.5 Withholding. Each Participant must pay the Company, or make provision satisfactory to the Administrator for payment of, any taxes required by law to be withheld in connection with such Participant's Awards by the date of the event creating the tax liability. The Company may deduct an amount sufficient to satisfy such tax obligations from any payment of any kind otherwise due to a Participant. The amount deducted shall be determined by the Company and may be up to, but no greater than, the aggregate amount of such obligations based on the maximum statutory withholding rates in the applicable Participant's jurisdiction for federal, state, local and foreign income tax and payroll tax purposes that are applicable to such taxable income. Subject to any Company insider trading policy (including blackout periods), Participants may satisfy such tax obligations (i) in cash, by wire transfer of immediately available funds, by check made payable to the order of the Company; provided that the Company may limit the use of one of the foregoing methods if one or more of the exercise methods below

is permitted, (ii) to the extent permitted by the Administrator, in whole or in part by delivery of Shares, including Shares delivered by attestation and Shares retained from the Award creating the tax obligation, valued at their Fair Market Value on the date of delivery, (iii) if there is a public market for Shares at the time the tax obligations are satisfied, unless the Administrator otherwise determines, (A) delivery (including electronically or telephonically to the extent permitted by the Company) of a notice that the Participant has placed a market sell order with a broker acceptable to the Company with respect to Shares then issuable upon exercise of the Option and that the broker has been directed to deliver promptly to the Company funds sufficient to satisfy the tax obligations, or (B) the Participant's delivery to the Company of a copy of irrevocable and unconditional instructions to a broker acceptable to the Company to deliver promptly to the Company an amount sufficient to satisfy the tax withholding by cash, wire transfer of immediately available funds or check; provided that such amount is paid to the Company at such time as may be required by the Company, (iv) to the extent permitted by the Administrator, delivery of a promissory note or any other lawful consideration or (v) to the extent permitted by the Administrator, any combination of the foregoing payment forms. If any tax withholding obligation will be satisfied under clause (ii) of the immediately preceding sentence by the Company's retention of Shares from the Award creating the tax obligation and there is a public market for Shares at the time the tax obligation is satisfied, the Company may elect to instruct any brokerage firm determined acceptable to the Company for such purpose to sell on the applicable Participant's behalf some or all of the Shares retained and to remit the proceeds of the sale to the Company or its designee, and each Participant's acceptance of an Award under the Plan will constitute the Participant's authorization to the Company and instruction and authorization to such brokerage firm to complete the transactions described in this sentence.

10.6 Amendment of Award; Repricing. The Administrator may amend, modify or terminate any outstanding Award, including by substituting another Award of the same or a different type, changing the exercise or settlement date, and converting an Incentive Stock Option to a Nonqualified Stock Option. The Participant's consent to such action will be required unless (i) the action, taking into account any related action, does not materially and adversely affect the Participant's rights under the Award, or (ii) the change is permitted under Article IX or pursuant to Section 11.6. In addition, the Administrator shall, without the approval of the stockholders of the Company, have the authority to (a) amend any outstanding Option or Stock Appreciation Right to reduce its exercise price per Share, or (b) cancel any Option or Stock Appreciation Right in exchange for cash or another Award.

10.7 Conditions on Delivery of Stock. The Company will not be obligated to deliver any Shares under the Plan or remove restrictions from Shares previously delivered under the Plan until (i) all Award conditions have been met or removed to the Company's satisfaction, (ii) as determined by the Company, all other legal matters regarding the issuance and delivery of such Shares have been satisfied, including any applicable securities laws and stock exchange or stock market rules and regulations, and (iii) the Participant has executed and delivered to the Company such representations or agreements as the Administrator deems necessary or appropriate to satisfy Applicable Law. The Company's inability to obtain authority from any regulatory body having jurisdiction, which the Administrator determines is necessary to the lawful issuance and sale of any securities, will relieve the Company of any liability for failing to issue or sell such Shares as to which such requisite authority has not been obtained.

10.8 Acceleration. The Administrator may at any time provide that any Award will become immediately vested and fully or partially exercisable, free of some or all restrictions or conditions, or otherwise fully or partially realizable.

**ARTICLE XI.
MISCELLANEOUS**

11.1 No Right to Employment or Other Status. No person will have any claim or right to be granted an Award, and the grant of an Award will not be construed as giving a Participant the right to continue employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship with a Participant free from any liability or claim under the Plan or any Award, except as expressly provided in an Award Agreement or other written agreement between the Participant and the Company or any Subsidiary.

11.2 No Rights as Stockholder; Certificates. Subject to the Award Agreement, no Participant or Designated Beneficiary will have any rights as a stockholder with respect to any Shares to be distributed under an Award until becoming the record holder of such Shares. Notwithstanding any other provision of the Plan, unless the Administrator otherwise determines or Applicable Law requires, the Company will not be required to deliver to any Participant certificates evidencing Shares issued in connection with any Award and instead such Shares may be recorded in the books of the Company (or, as applicable, its transfer agent or stock plan administrator). The Company may place legends on any share certificate or book entry to reference restrictions applicable to the Shares (including, without limitation, restrictions applicable to Restricted Stock).

11.3 Effective Date. The Plan will become effective on the day prior to the Public Trading Date (the "**Effective Date**"). No Incentive Stock Option may be granted pursuant to the Plan after the tenth anniversary of the earlier of (i) the date the Plan was approved by the Board and (ii) the date the Plan was approved by the Company's stockholders.

11.4 Amendment of Plan. The Board may amend, suspend or terminate the Plan at any time and from time to time; provided that (a) no amendment requiring stockholder approval to comply with Applicable Law shall be effective unless approved by the Board, and (b) no amendment, other than an increase to the Overall Share Limit or pursuant to Section Article IX or Section 11.6, may materially and adversely affect any Award outstanding at the time of such amendment without the affected Participant's consent. No Awards may be granted under the Plan during any suspension period or after Plan termination. Awards outstanding at the time of any Plan suspension or termination will continue to be governed by the Plan and the Award Agreement, as in effect before such suspension or termination. The Board will obtain stockholder approval of any Plan amendment to the extent necessary to comply with Applicable Law.

11.5 Provisions for Foreign Participants. The Administrator may modify Awards granted to Participants who are foreign nationals or employed outside the United States, establish subplans or procedures under the Plan or take any other necessary or appropriate action to address Applicable Law, including (a) differences in laws, rules, regulations or customs of such foreign jurisdictions with respect to tax, securities, currency, employee benefit or other matters, (b) listing and other requirements of any foreign securities exchange, and (c) any necessary local governmental or regulatory exemptions or approvals.

11.6 Section 409A.

(a) *General*. The Company intends that all Awards be structured to comply with, or be exempt from, Section 409A, such that no adverse tax consequences, interest, or penalties under Section 409A apply. Notwithstanding anything in the Plan or any Award Agreement to the contrary, the Administrator may, without a Participant's consent, amend this Plan or Awards, adopt policies and procedures, or take any other actions (including amendments, policies, procedures and retroactive actions) as are necessary or appropriate to preserve the intended tax treatment of Awards, including any such actions intended to (A) exempt this Plan or any Award from Section 409A, or (B) comply with Section 409A, including regulations, guidance, compliance programs and other interpretative authority

that may be issued after an Award's grant date. The Company makes no representations or warranties as to an Award's tax treatment under Section 409A or otherwise. The Company will have no obligation under this Section 11.6 or otherwise to avoid the taxes, penalties or interest under Section 409A with respect to any Award and will have no liability to any Participant or any other person if any Award, compensation or other benefits under the Plan are determined to constitute noncompliant "nonqualified deferred compensation" subject to taxes, penalties or interest under Section 409A.

(b) *Separation from Service.* If an Award constitutes "nonqualified deferred compensation" under Section 409A, any payment or settlement of such Award upon a Participant's Termination of Service will, to the extent necessary to avoid taxes under Section 409A, be made only upon the Participant's "separation from service" (within the meaning of Section 409A), whether such "separation from service" occurs upon or after the Participant's Termination of Service. For purposes of this Plan or any Award Agreement relating to any such payments or benefits, references to a "termination," "termination of employment" or like terms means a "separation from service."

(c) *Payments to Specified Employees.* Notwithstanding any contrary provision in the Plan or any Award Agreement, any payment(s) of "nonqualified deferred compensation" required to be made under an Award to a "specified employee" (as defined under Section 409A and as the Administrator determines) due to his or her "separation from service" will, to the extent necessary to avoid taxes under Section 409A(a)(2)(B)(i) of the Code, be delayed for the six-month period immediately following such "separation from service" (or, if earlier, until the specified employee's death) and will instead be paid (as set forth in the Award Agreement) on the day immediately following such six-month period or as soon as administratively practicable thereafter (without interest). Any payments of "nonqualified deferred compensation" under such Award payable more than six months following the Participant's "separation from service" will be paid at the time or times the payments are otherwise scheduled to be made.

11.7 Limitations on Liability. Notwithstanding any other provisions of the Plan, no individual acting as a director, officer or other employee of the Company or any Subsidiary will be liable to any Participant, former Participant, spouse, beneficiary, or any other person for any claim, loss, liability, or expense incurred in connection with the Plan or any Award, and such individual will not be personally liable with respect to the Plan because of any contract or other instrument executed in his or her capacity as an Administrator, director, officer or other employee of the Company or any Subsidiary. The Company will indemnify and hold harmless each director, officer or other employee of the Company or any Subsidiary that has been or will be granted or delegated any duty or power relating to the Plan's administration or interpretation, against any cost or expense (including attorneys' fees) or liability (including any sum paid in settlement of a claim with the Administrator's approval) arising from any act or omission concerning this Plan unless arising from such person's own fraud or bad faith; provided that he or she gives the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf.

11.8 Data Privacy. As a condition for receiving any Award, each Participant explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of personal data as described in this Section by and among the Company and its Subsidiaries and affiliates exclusively for implementing, administering and managing the Participant's participation in the Plan. The Company and its Subsidiaries and affiliates may hold certain personal information about a Participant, including the Participant's name, address and telephone number; birthdate; social security, insurance number or other identification number; salary; nationality; job title(s); any Shares held in the Company or its Subsidiaries and affiliates; and Award details, to implement, manage and administer the Plan and Awards (the "**Data**"). The Company and its Subsidiaries and affiliates may transfer the Data amongst themselves as necessary to implement, administer and manage a Participant's participation in the Plan, and the Company and its Subsidiaries and affiliates may transfer the Data to third parties assisting the Company

with Plan implementation, administration and management. These recipients may be located in the Participant's country, or elsewhere, and the Participant's country may have different data privacy laws and protections than the recipients' country. By accepting an Award, each Participant authorizes such recipients to receive, possess, use, retain and transfer the Data, in electronic or other form, to implement, administer and manage the Participant's participation in the Plan, including any required Data transfer to a broker or other third party with whom the Company or the Participant may elect to deposit any Shares. The Data related to a Participant will be held only as long as necessary to implement, administer, and manage the Participant's participation in the Plan. A Participant may, at any time, view the Data that the Company holds regarding such Participant, request additional information about the storage and processing of the Data regarding such Participant, recommend any necessary corrections to the Data regarding the Participant or refuse or withdraw the consents in this Section 11.8 in writing, without cost, by contacting the local human resources representative. The Company may cancel Participant's ability to participate in the Plan and, in the Administrator's sole discretion, the Participant may forfeit any outstanding Awards if the Participant refuses or withdraws the consents in this Section 11.8. For more information on the consequences of refusing or withdrawing consent, Participants may contact their local human resources representative.

11.9 Severability. If any portion of the Plan or any action taken under it is held illegal or invalid for any reason, the illegality or invalidity will not affect the remaining parts of the Plan, and the Plan will be construed and enforced as if the illegal or invalid provisions had been excluded, and the illegal or invalid action will be null and void.

11.10 Governing Documents. If any contradiction occurs between the Plan and any Award Agreement or other written agreement between a Participant and the Company (or any Subsidiary), the Plan will govern, unless such Award Agreement or other written agreement was approved by the Administrator and expressly provides that a specific provision of the Plan will not apply.

11.11 Governing Law. The Plan and all Awards will be governed by and interpreted in accordance with the laws of the State of Delaware, disregarding the choice-of-law principles of the State of Delaware and any other state requiring the application of a jurisdiction's laws other than the State of Delaware.

11.12 Clawback Provisions. All Awards (including the gross amount of any proceeds, gains or other economic benefit the Participant actually or constructively receives upon receipt or exercise of any Award or the receipt or resale of any Shares underlying the Award) will be subject to recoupment by the Company to the extent required to comply with Applicable Law or any policy of the Company providing for the reimbursement of incentive compensation, whether or not such policy was in place at the time of grant of an Award.

11.13 Titles and Headings. The titles and headings in the Plan are for convenience of reference only and, if any conflict, the Plan's text, rather than such titles or headings, will control.

11.14 Conformity to Applicable Law. Participant acknowledges that the Plan is intended to conform to the extent necessary with Applicable Law. Notwithstanding anything herein to the contrary, the Plan and all Awards will be administered only in a manner intended to conform with Applicable Law. To the extent Applicable Law permit, the Plan and all Award Agreements will be deemed amended as necessary to conform to Applicable Law.

11.15 Relationship to Other Benefits. No payment under the Plan will be taken into account in determining any benefits under any pension, retirement, savings, profit sharing, group insurance, welfare or other benefit plan of the Company or any Subsidiary, except as expressly provided in writing in such other plan or an agreement thereunder.

11.16 Unfunded Status of Awards. The Plan is intended to be an “unfunded” plan for incentive compensation. With respect to any payments not yet made to a Participant pursuant to an Award, nothing contained in the Plan or Award Agreement shall give the Participant any rights that are greater than those of a general creditor of the Company or any Subsidiary.

11.17 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan, the Plan and any Award granted or awarded to any individual who is then subject to Section 16 of the Exchange Act shall be subject to any additional limitations set forth in any applicable exemptive rule under Section 16 of the Exchange Act (including Rule 16b-3 of the Exchange Act and any amendments thereto) that are requirements for the application of such exemptive rule. To the extent permitted by Applicable Law, the Plan and Awards granted or awarded hereunder shall be deemed amended to the extent necessary to conform to such applicable exemptive rule.

11.18 Prohibition on Executive Officer Loans. Notwithstanding any other provision of the Plan to the contrary, no Participant who is a Director or an “executive officer” of the Company within the meaning of Section 13(k) of the Exchange Act shall be permitted to make payment with respect to any Awards granted under the Plan, or continue any extension of credit with respect to such payment, with a loan from the Company or a loan arranged by the Company in violation of Section 13(k) of the Exchange Act.

11.19 Broker-Assisted Sales. In the event of a broker-assisted sale of Shares in connection with the payment of amounts owed by a Participant under or with respect to the Plan or Awards, including amounts to be paid under the final sentence of Section 10.5: (a) any Shares to be sold through the broker-assisted sale will be sold on the day the payment first becomes due, or as soon thereafter as practicable; (b) such Shares may be sold as part of a block trade with other Participants in the Plan in which all participants receive an average price; (c) the applicable Participant will be responsible for all broker’s fees and other costs of sale, and by accepting an Award, each Participant agrees to indemnify and hold the Company harmless from any losses, costs, damages, or expenses relating to any such sale; (d) to the extent the Company or its designee receives proceeds of such sale that exceed the amount owed, the Company will pay such excess in cash to the applicable Participant as soon as reasonably practicable; (e) the Company and its designees are under no obligation to arrange for such sale at any particular price; and (f) in the event the proceeds of such sale are insufficient to satisfy the Participant’s applicable obligation, the Participant may be required to pay immediately upon demand to the Company or its designee an amount in cash sufficient to satisfy any remaining portion of the Participant’s obligation.

* * * * *

I hereby certify that the foregoing Plan was duly adopted by the Board of Directors of Unity Biotechnology, Inc. on [], 2018.

* * * * *

I hereby certify that the foregoing Plan was approved by the stockholders of Unity Biotechnology, Inc. on [], 2018.

Executed on this day of [], 2018.

Corporate Secretary

**UNITY BIOTECHNOLOGY, INC.
2018 EMPLOYEE STOCK PURCHASE PLAN**

**ARTICLE I.
PURPOSE, SCOPE AND ADMINISTRATION OF THE PLAN**

1.1 Purpose and Scope. The purpose of the Unity Biotechnology, Inc. 2018 Employee Stock Purchase Plan, as it may be amended from time to time, (the "Plan") is to assist employees of Unity Biotechnology, Inc., a Delaware corporation, (the "Company") and its Designated Subsidiaries in acquiring a stock ownership interest in the Company pursuant to a plan which is intended to qualify as an "employee stock purchase plan" under Section 423 of the Code and to help such employees provide for their future security and to encourage them to remain in the employment of the Company and its Subsidiaries.

**ARTICLE II.
DEFINITIONS**

Whenever the following terms are used in the Plan, they shall have the meaning specified below unless the context clearly indicates to the contrary. The singular pronoun shall include the plural where the context so indicates.

2.1 "Administrator" shall mean the Committee, or such individuals to which authority to administer the Plan has been delegated under Section 7.1 hereof.

2.2 "Agent" means the brokerage firm, bank or other financial institution, entity or person(s), if any, engaged, retained, appointed or authorized to act as the agent of the Company or an Employee with regard to the Plan.

2.3 "Board" shall mean the Board of Directors of the Company.

2.4 "Code" shall mean the Internal Revenue Code of 1986, as amended.

2.5 "Committee" shall mean the Compensation Committee of the Board.

2.6 "Common Stock" shall mean the common stock of the Company.

2.7 "Company" shall have such meaning as set forth in Section 1.1 hereof.

2.8 "Compensation" of an Employee shall mean the regular earnings or base salary, bonuses and commissions paid to the Employee from the Company on each Payday as compensation for services to the Company or any Designated Subsidiary, before deduction for any salary deferral contributions made by the Employee to any tax-qualified or nonqualified deferred compensation plan, including overtime, shift differentials, vacation pay, salaried production schedule premiums, holiday pay, jury duty pay, funeral leave pay, paid time off, military pay, prior week adjustments and weekly bonus, but excluding education or tuition reimbursements, imputed income arising under any group insurance or benefit program, travel

expenses, business and moving reimbursements, including tax gross ups and taxable mileage allowance, income received in connection with any stock options, restricted stock, restricted stock units or other compensatory equity awards and all contributions made by the Company or any Designated Subsidiary for the Employee's benefit under any employee benefit plan now or hereafter established. Such Compensation shall be calculated before deduction of any income or employment tax withholdings, but shall be withheld from the Employee's net income.

2.9 "Designated Subsidiary" shall mean each Subsidiary that has been designated by the Board or Committee from time to time in its sole discretion as eligible to participate in the Plan, including any Subsidiary in existence on the Effective Date and any Subsidiary formed or acquired following the Effective Date, in accordance with Section 7.2 hereof.

2.10 "Effective Date" shall mean the date immediately prior to the date Company's registration statement relating to its initial public offering becomes effective, *provided* that the Board has adopted the Plan prior to or on such date, subject to approval of the Plan by the Company's stockholders.

2.11 "Eligible Employee" shall mean an Employee who (a) is customarily scheduled to work at least twenty (20) hours per week, (b) whose customary employment is more than five (5) months in a calendar year and (c) after the granting of the Option would not be deemed for purposes of Section 423(b)(3) of the Code to possess five percent (5%) or more of the total combined voting power or value of all classes of stock of the Company or any Subsidiary. For purposes of clause (c), the rules of Section 424(d) of the Code with regard to the attribution of stock ownership shall apply in determining the stock ownership of an individual, and stock which an Employee may purchase under outstanding options shall be treated as stock owned by the Employee. Notwithstanding the foregoing, the Administrator may exclude from participation in the Plan as an Eligible Employee (x) any Employee that is a "highly compensated employee" of the Company or any Designated Subsidiary (within the meaning of Section 414(q) of the Code), or that is such a "highly compensated employee" (A) with compensation above a specified level, (B) who is an officer and/or (C) is subject to the disclosure requirements of Section 16(a) of the Exchange Act and/or (y) any Employee who is a citizen or resident of a foreign jurisdiction (without regard to whether they are also a citizen of the United States or a resident alien (within the meaning of Section 7701(b)(1)(A) of the Code)) if either (i) the grant of the Option is prohibited under the laws of the jurisdiction governing such Employee, or (ii) compliance with the laws of the foreign jurisdiction would cause the Plan or the Option to violate the requirements of Section 423 of the Code; *provided* that any exclusion in clauses (x), and/or (y) shall be applied in an identical manner under each Offering Period to all Employees of the Company and all Designated Subsidiaries, in accordance with Treasury Regulation Section 1.423-2(e).

2.12 "Employee" shall mean any person who renders services to the Company or a Designated Subsidiary in the status of an employee within the meaning of Section 3401(c) of the Code. "Employee" shall not include any director of the Company or a Designated Subsidiary who does not render services to the Company or a Designated Subsidiary in the status of an employee within the meaning of Section 3401(c) of the Code. For purposes of the Plan, the employment relationship shall be treated as continuing intact while the individual is on military

leave, sick leave or other leave of absence approved by the Company or Designated Subsidiary and meeting the requirements of Treasury Regulation Section 1.421-1(h)(2). Where the period of leave exceeds three (3) months, or such other period specified in Treasury Regulation Section 1.421-1(h)(2), and the individual's right to reemployment is not guaranteed either by statute or by contract, the employment relationship shall be deemed to have terminated on the first day immediately following such three (3)-month period, or such other period specified in Treasury Regulation Section 1.421-1(h)(2).

2.13 "Enrollment Date" shall mean the first date of each Offering Period.

2.14 "Exercise Date" shall mean the last Trading Day of each Offering Period, except as provided in Section 5.2 hereof.

2.15 "Exchange Act" shall mean the Securities Exchange Act of 1934, as amended.

2.16 "Fair Market Value" shall mean, as of any date, the value of Common Stock determined as follows:

(a) If the Common Stock is (i) listed on any established securities exchange (such as the New York Stock Exchange, the NASDAQ Global Market and the NASDAQ Global Select Market), (ii) listed on any national market system or (iii) listed, quoted or traded on any automated quotation system, its Fair Market Value shall be the closing sales price for a share of Common Stock as quoted on such exchange or system for such date or, if there is no closing sales price for a share of Common Stock on the date in question, the closing sales price for a share of Stock on the last preceding date for which such quotation exists, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(b) If the Common Stock is not listed on an established securities exchange, national market system or automated quotation system, but the Common Stock is regularly quoted by a recognized securities dealer, its Fair Market Value shall be the mean of the high bid and low asked prices for such date or, if there are no high bid and low asked prices for a share of Common Stock on such date, the high bid and low asked prices for a share of Common Stock on the last preceding date for which such information exists, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable; or

(c) If the Common Stock is neither listed on an established securities exchange, national market system or automated quotation system nor regularly quoted by a recognized securities dealer, its Fair Market Value shall be established by the Administrator in good faith.

2.17 "Grant Date" shall mean the first Trading Day of an Offering Period.

2.18 "New Exercise Date" shall have such meaning as set forth in Section 5.2(b) hereof.

2.19 "Offering Period" shall mean such period of time commencing on such date(s) as determined by the Board or Committee, in its sole discretion, and with respect to which Options shall be granted to Participants. The duration and timing of Offering Periods may be established or changed by the Board or Committee at any time, in its sole discretion. Notwithstanding the foregoing, in no event may an Offering Period exceed twenty-seven (27) months.

2.20 "Option" shall mean the right to purchase shares of Common Stock pursuant to the Plan during each Offering Period.

2.21 "Option Price" shall mean the purchase price of a share of Common Stock hereunder as provided in Section 4.2 hereof.

2.22 "Parent" means any entity that is a parent corporation of the Company within the meaning of Section 424 of the Code and the Treasury Regulations thereunder.

2.23 "Participant" shall mean any Eligible Employee who elects to participate in the Plan.

2.24 "Payday" shall mean the regular and recurring established day for payment of Compensation to an Employee of the Company or any Designated Subsidiary.

2.25 "Plan" shall have such meaning as set forth in Section 1.1 hereof.

2.26 "Plan Account" shall mean a bookkeeping account established and maintained by the Company in the name of each Participant.

2.27 "Section 423 Option" shall have such meaning as set forth in Section 3.1(b) hereof.

2.28 "Subsidiary" shall mean any entity that is a subsidiary corporation of the Company within the meaning of Section 424 of the Code and the Treasury Regulations thereunder. In addition, with respect to any sub-plans adopted under Section 7.1(d) hereof which are designed to be outside the scope of Section 423 of the Code, Subsidiary shall include any corporate or noncorporate entity in which the Company has a direct or indirect equity interest or significant business relationship.

2.29 "Trading Day" shall mean a day on which the principal securities exchange on which the Common Stock is listed is open for trading or, if the Common Stock is not listed on a securities exchange, shall mean a business day, as determined by the Administrator in good faith.

2.30 "Withdrawal Election" shall have such meaning as set forth in Section 6.1(a) hereof.

**ARTICLE III.
PARTICIPATION**

3.1 Eligibility.

(a) Any Eligible Employee who shall be employed by the Company or a Designated Subsidiary on a given Enrollment Date for an Offering Period shall be eligible to participate in the Plan during such Offering Period, subject to the requirements of Articles IV and V hereof, and the limitations imposed by Section 423(b) of the Code and the Treasury Regulations thereunder.

(b) No Eligible Employee shall be granted an Option under the Plan which permits the Participant's rights to purchase shares of Common Stock under the Plan, and to purchase stock under all other employee stock purchase plans of the Company, any Parent or any Subsidiary subject to the Section 423 of the Code (any such Option or other option, a "Section 423 Option"), to accrue at a rate which exceeds \$25,000 of fair market value of such stock (determined at the time the Section 423 Option is granted) for each calendar year in which any Section 423 Option granted to the Participant is outstanding at any time. For purposes of the limitation imposed by this subsection,

(i) the right to purchase stock under a Section 423 Option accrues when the Section 423 Option (or any portion thereof) first becomes exercisable during the calendar year,

(ii) the right to purchase stock under a Section 423 Option accrues at the rate provided in the Section 423 Option, but in no case may such rate exceed \$25,000 of fair market value of such stock (determined at the time such option is granted) for any one calendar year, and

(iii) a right to purchase stock which has accrued under a Section 423 Option may not be carried over to any other Section 423 Option; *provided* that Participants may carry forward amounts so accrued that represent a fractional share of stock and were withheld but not applied towards the purchase of Common Stock under an earlier Offering Period, and may apply such amounts towards the purchase of additional shares of Common Stock under a subsequent Offering Period.

The limitation under this Section 3.1(b) shall be applied in accordance with Section 423(b)(8) of the Code and the Treasury Regulations thereunder.

3.2 Election to Participate; Payroll Deductions

(a) Except as provided in Section 3.3 hereof, an Eligible Employee may become a Participant in the Plan only by means of payroll deduction. Each individual who is an Eligible Employee as of an Offering Period's Enrollment Date may elect to participate in such Offering Period and the Plan by delivering to the Company a payroll deduction authorization no later such period of time prior to the applicable Enrollment Date as determined by the Administrator, in its sole discretion.

(b) Subject to Section 3.1(b) hereof, payroll deductions (i) shall be equal to at least one percent (1%) of the Participant's Compensation as of each Payday of the Offering Period following the Enrollment Date, but not more than the lesser of fifteen percent (15%) of the Participant's Compensation as of each Payday of the Offering Period following the Enrollment Date or \$50,000 per Offering Period; and (ii) may be expressed either as (A) a whole number percentage, or (B) a fixed dollar amount. Amounts deducted from a Participant's Compensation with respect to an Offering Period pursuant to this Section 3.2 shall be deducted each Payday through payroll deduction and credited to the Participant's Plan Account.

(c) Following at least one (1) payroll deduction, a Participant may decrease (to as low as zero) the amount deducted from such Participant's Compensation only once during an Offering Period upon ten (10) calendar days' prior written notice to the Company. A Participant may not increase the amount deducted from such Participant's Compensation during an Offering Period.

(d) Notwithstanding the foregoing, upon the termination of an Offering Period, each Participant in such Offering Period shall automatically participate in the immediately following Offering Period at the same payroll deduction percentage or fixed amount as in effect at the termination of the prior Offering Period, unless such Participant delivers to the Company a different election with respect to the successive Offering Period in accordance with Section 3.2(a) hereof, or unless such Participant becomes ineligible for participation in the Plan.

3.3 Leave of Absence. During leaves of absence approved by the Company meeting the requirements of Treasury Regulation Section 1.421-1(h)(2) under the Code, a Participant may continue participation in the Plan by making cash payments to the Company on his or her normal payday equal to his or her authorized payroll deduction.

ARTICLE IV. PURCHASE OF SHARES

4.1 Grant of Option. Each Participant shall be granted an Option with respect to an Offering Period on the applicable Grant Date. Subject to the limitations of Section 3.1(b) hereof, the number of shares of Common Stock subject to a Participant's Option shall be determined by dividing (a) such Participant's payroll deductions accumulated prior to an Exercise Date and retained in the Participant's Plan Account on such Exercise Date by (b) the applicable Option Price; *provided* that in no event shall a Participant be permitted to purchase during each Offering Period more than 15,000 shares of Common Stock (subject to any adjustment pursuant to Section 5.2 hereof). The Administrator may, for future Offering Periods, increase or decrease, in its absolute discretion, the maximum number of shares of Common Stock that a Participant may purchase during such future Offering Periods. Each Option shall expire on the Exercise Date for the applicable Offering Period immediately after the automatic exercise of the Option in accordance with Section 4.3 hereof, unless such Option terminates earlier in accordance with Article 6 hereof.

4.2 Option Price. The "Option Price" per share of Common Stock to be paid by a Participant upon exercise of the Participant's Option on the applicable Exercise Date for an Offering Period shall be equal to eighty five percent (85%) of the lesser of the Fair Market Value of a share of Common Stock on (a) the applicable Grant Date and (b) the applicable Exercise Date; *provided* that in no event shall the Option Price per share of Common Stock be less than the par value per share of the Common Stock.

4.3 Purchase of Shares.

(a) On the applicable Exercise Date for an Offering Period, each Participant shall automatically and without any action on such Participant's part be deemed to have exercised his or her Option to purchase at the applicable per share Option Price the largest number of whole shares of Common Stock which can be purchased with the amount in the Participant's Plan Account. Any balance less than the per share Option Price that is remaining in the Participant's Plan Account (after exercise of such Participant's Option) as of the Exercise Date shall be carried forward to the next Offering Period, unless the Participant has elected to withdraw from the Plan pursuant to Section 6.1 hereof or, pursuant to Section 6.2 hereof, such Participant has ceased to be an Eligible Employee. Any balance not carried forward to the next Offering Period in accordance with the prior sentence promptly shall be refunded to the applicable Participant. For the avoidance of doubt, in no event shall an amount greater than or equal to the per share Option Price as of an Exercise Date be carried forward to the next Offering Period.

(b) As soon as practicable following the applicable Exercise Date, the number of shares of Common Stock purchased by such Participant pursuant to Section 4.3(a) hereof shall be delivered (either in share certificate or book entry form), in the Company's sole discretion, to either (i) the Participant or (ii) an account established in the Participant's name at a stock brokerage or other financial services firm designated by the Company. If the Company is required to obtain from any commission or agency authority to issue any such shares of Common Stock, the Company shall seek to obtain such authority. Inability of the Company to obtain from any such commission or agency authority which counsel for the Company deems necessary for the lawful issuance of any such shares shall relieve the Company from liability to any Participant except to refund to the Participant such Participant's Plan Account balance, without interest thereon.

4.4 Transferability of Rights. An Option granted under the Plan shall not be transferable, other than by will or the applicable laws of descent and distribution, and is exercisable during the Participant's lifetime only by the Participant. No option or interest or right to the Option shall be available to pay off any debts, contracts or engagements of the Participant or his or her successors in interest or shall be subject to disposition by pledge, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law by judgment, levy, attachment, garnishment or any other legal or equitable proceedings (including bankruptcy), and any attempt at disposition of the option shall have no effect.

ARTICLE V. PROVISIONS RELATING TO COMMON STOCK

5.1 Common Stock Reserved. Subject to adjustment as provided in Section 5.2 hereof, the maximum number of shares of Common Stock that shall be made available for sale under the Plan shall be the sum of (a) 536,242 shares and (b) an annual increase on the first day of each year beginning in 2019 and ending in 2028 equal to the lesser of (i) one percent (1%) of the shares outstanding (on an as converted basis) on the last day of the immediately preceding fiscal year and (ii) such number of shares as may be determined by the Board; provided, however, no more than 8,000,000 shares may be issued under the Plan. Shares made available for sale under the Plan may be authorized but unissued shares, treasury shares of Common Stock, or reacquired shares reserved for issuance under the Plan.

5.2 Adjustments Upon Changes in Capitalization, Dissolution, Liquidation, Merger or Asset Sale.

(a) Changes in Capitalization. Subject to any required action by the stockholders of the Company, the number of shares of Common Stock which have been authorized for issuance under the Plan but not yet placed under Option, as well as the price per share and the number of shares of Common Stock covered by each Option under the Plan which has not yet been exercised shall be proportionately adjusted for any increase or decrease in the number of issued shares of 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 the Company; *provided, however,* that conversion of any convertible securities of the Company shall not be deemed to have been “effected without receipt of consideration.” Such adjustment shall be made by the Administrator, whose determination in that respect shall be final, binding and conclusive. Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares of Common Stock subject to an Option.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Offering Period then in progress shall be shortened by setting a new Exercise Date (the “New Exercise Date”), and shall terminate immediately prior to the consummation of such proposed dissolution or liquidation, unless provided otherwise by the Administrator. The New Exercise Date shall be before the date of the Company’s proposed dissolution or liquidation. The Administrator shall notify each Participant in writing, at least ten (10) business days prior to the New Exercise Date, that the Exercise Date for the Participant’s Option has been changed to the New Exercise Date and that the Participant’s Option shall be exercised automatically on the New Exercise Date, unless prior to such date the Participant has withdrawn from the Offering Period as provided in Section 6.1 hereof.

(c) Merger or Asset Sale. In the event of a proposed sale of all or substantially all of the assets of the Company, or the merger of the Company with or into another corporation, each outstanding Option shall be assumed or an equivalent Option substituted by the successor corporation or a Parent or Subsidiary of the successor corporation. In the event that the successor corporation refuses to assume or substitute for the Option, any Offering Periods then in progress shall be shortened by setting a New Exercise Date and any Offering Periods then in progress shall end on the New Exercise Date. The New Exercise Date shall be before the date of the Company’s proposed sale or merger. The Administrator shall notify each Participant in writing, at least ten (10) business days prior to the New Exercise Date, that the Exercise Date for the Participant’s Option has been changed to the New Exercise Date and that the Participant’s Option shall be exercised automatically on the New Exercise Date, unless prior to such date the Participant has withdrawn from the Offering Period as provided in Section 6.1 hereof.

5.3 Insufficient Shares. If the Administrator determines that, on a given Exercise Date, the number of shares of Common Stock with respect to which Options are to be exercised may exceed the number of shares of Common Stock remaining available for sale under the Plan on such Exercise Date, the Administrator shall make a pro rata allocation of the shares of Common Stock available for issuance on such Exercise Date in as uniform a manner as shall be practicable and as it shall determine in its sole discretion to be equitable among all Participants exercising Options to purchase Common Stock on such Exercise Date, and unless additional shares are authorized for issuance under the Plan, no further Offering Periods shall take place and the Plan shall terminate pursuant to Section 7.5 hereof. If an Offering Period is so terminated, then the balance of the amount credited to the Participant's Plan Account which has not been applied to the purchase of shares of Common Stock shall be paid to such Participant in one lump sum in cash within thirty (30) days after such Exercise Date, without any interest thereon.

5.4 Rights as Stockholders. With respect to shares of Common Stock subject to an Option, a Participant shall not be deemed to be a stockholder of the Company and shall not have any of the rights or privileges of a stockholder. A Participant shall have the rights and privileges of a stockholder of the Company when, but not until, shares of Common Stock have been deposited in the designated brokerage account following exercise of his or her Option.

ARTICLE VI. TERMINATION OF PARTICIPATION

6.1 Cessation of Contributions; Voluntary Withdrawal.

(a) A Participant may cease payroll deductions during an Offering Period and elect to withdraw from the Plan by delivering written notice of such election to the Company in such form and at such time prior to the Exercise Date for such Offering Period as may be established by the Administrator (a "Withdrawal Election"). A Participant electing to withdraw from the Plan may elect to either (i) withdraw all of the funds then credited to the Participant's Plan Account as of the date on which the Withdrawal Election is received by the Company, in which case amounts credited to such Plan Account shall be returned to the Participant in one (1) lump-sum payment in cash within thirty (30) days after such election is received by the Company, without any interest thereon, and the Participant shall cease to participate in the Plan and the Participant's Option for such Offering Period shall terminate; or (ii) exercise the Option for the maximum number of whole shares of Common Stock on the applicable Exercise Date with any remaining Plan Account balance returned to the Participant in one (1) lump-sum payment in cash within thirty (30) days after such Exercise Date, without any interest thereon, and after such exercise cease to participate in the Plan. Upon receipt of a Withdrawal Election, the Participant's payroll deduction authorization and his or her Option to purchase under the Plan shall terminate.

(b) A participant's withdrawal from the Plan shall not have any effect upon his or her eligibility to participate in any similar plan which may hereafter be adopted by the Company or in succeeding Offering Periods which commence after the termination of the Offering Period from which the Participant withdraws.

(c) A Participant who ceases contributions to the Plan during any Offering Period shall not be permitted to resume contributions to the Plan during that Offering Period.

6.2 Termination of Eligibility. Upon a Participant's ceasing to be an Eligible Employee, for any reason, such Participant's Option for the applicable Offering Period shall automatically terminate, he or she shall be deemed to have elected to withdraw from the Plan, and such Participant's Plan Account shall be paid to such Participant or, in the case of his or her death, to the person or persons entitled thereto pursuant to applicable law, within thirty (30) days after such cessation of being an Eligible Employee, without any interest thereon.

ARTICLE VII. GENERAL PROVISIONS

7.1 Administration.

(a) The Plan shall be administered by the Committee, which shall be composed of members of the Board. The Committee may delegate administrative tasks under the Plan to the services of an Agent and/or Employees to assist in the administration of the Plan, including establishing and maintaining an individual securities account under the Plan for each Participant.

(b) It shall be the duty of the Administrator to conduct the general administration of the Plan in accordance with the provisions of the Plan. The Administrator shall have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To establish and terminate Offering Periods;

(ii) To determine when and how Options shall be granted and the provisions and terms of each Offering Period (which need not be identical);

(iii) To select Designated Subsidiaries in accordance with Section 7.2 hereof; and

(iv) To construe and interpret the Plan, the terms of any Offering Period and the terms of the Options and to adopt such rules for the administration, interpretation, and application of the Plan as are consistent therewith and to interpret, amend or revoke any such rules. The Administrator, in the exercise of this power, may correct any defect, omission or inconsistency in the Plan, any Offering Period or any Option, in a manner and to the extent it shall deem necessary or expedient to make the Plan fully effect, subject to Section 423 of the Code and the Treasury Regulations thereunder.

(c) The Administrator may adopt rules or procedures relating to the operation and administration of the Plan to accommodate the specific requirements of local laws and procedures. Without limiting the generality of the foregoing, the Administrator is specifically authorized to adopt rules and procedures regarding handling of participation elections, payroll deductions, payment of interest, conversion of local currency, payroll tax, withholding procedures and handling of stock certificates which vary with local requirements. In its absolute discretion, the Board may at any time and from time to time exercise any and all rights and duties of the Administrator under the Plan.

(d) The Administrator may adopt sub-plans applicable to particular Designated Subsidiaries or locations, which sub-plans may be designed to be outside the scope of Section 423 of the Code. The rules of such sub-plans may take precedence over other provisions of this Plan, with the exception of Section 5.1 hereof, but unless otherwise superseded by the terms of such sub-plan, the provisions of this Plan shall govern the operation of such sub-plan.

(e) All expenses and liabilities incurred by the Administrator in connection with the administration of the Plan shall be borne by the Company. The Administrator may, with the approval of the Committee, employ attorneys, consultants, accountants, appraisers, brokers or other persons. The Administrator, the Company and its officers and directors shall be entitled to rely upon the advice, opinions or valuations of any such persons. All actions taken and all interpretations and determinations made by the Administrator in good faith shall be final and binding upon all Participants, the Company and all other interested persons. No member of the Board or Administrator shall be personally liable for any action, determination or interpretation made in good faith with respect to the Plan or the options, and all members of the Board or Administrator shall be fully protected by the Company in respect to any such action, determination, or interpretation.

7.2 Designation of Subsidiary Corporations. The Board or Committee shall designate from among the Subsidiaries, as determined from time to time, the Subsidiary or Subsidiaries that shall constitute Designated Subsidiaries. The Board or Committee may designate a Subsidiary, or terminate the designation of a Subsidiary, without the approval of the stockholders of the Company.

7.3 Reports. Individual accounts shall be maintained for each Participant in the Plan. Statements of Plan Accounts shall be given to Participants at least annually, which statements shall set forth the amounts of payroll deductions, the Option Price, the number of shares purchased and the remaining cash balance, if any.

7.4 No Right to Employment. Nothing in the Plan shall be construed to give any person (including any Participant) the right to remain in the employ of the Company, a Parent or a Subsidiary or to affect the right of the Company, any Parent or any Subsidiary to terminate the employment of any person (including any Participant) at any time, with or without cause, which right is expressly reserved.

7.5 Amendment and Termination of the Plan.

(a) The Board may, in its sole discretion, amend, suspend or terminate the Plan at any time and from time to time; *provided, however*, that without approval of the Company's stockholders given within twelve (12) months before or after action by the Board, the Plan may not be amended to increase the maximum number of shares of Common Stock subject to the Plan or change the designation or class of Eligible Employees; and *provided, further* that without approval of the Company's stockholders, the Plan may not be amended in any manner that would cause the Plan to no longer be an "employee stock purchase plan" within the meaning of Section 423(b) of the Code.

(b) In the event the Administrator determines that the ongoing operation of the Plan may result in unfavorable financial accounting consequences, the Administrator may, to the extent permitted under Section 423 of the Code, in its discretion and, to the extent necessary or desirable, modify or amend the Plan to reduce or eliminate such accounting consequence including, but not limited to:

- (i) altering the Option Price for any Offering Period including an Offering Period underway at the time of the change in Option Price;
- (ii) shortening any Offering Period so that the Offering Period ends on a new Exercise Date, including an Offering Period underway at the time of the Administrator action; and
- (iii) allocating shares of Common Stock.

Such modifications or amendments shall not require stockholder approval or the consent of any Participant.

(c) Upon termination of the Plan, the balance in each Participant's Plan Account shall be refunded as soon as practicable after such termination, without any interest thereon.

7.6 Use of Funds; No Interest Paid. All funds received by the Company by reason of purchase of Common Stock under the Plan shall be included in the general funds of the Company free of any trust or other restriction and may be used for any corporate purpose. No interest shall be paid to any Participant or credited under the Plan.

7.7 Term; Approval by Stockholders. No Option may be granted during any period of suspension of the Plan or after termination of the Plan. The Plan shall be submitted for the approval of the Company's stockholders within twelve (12) months after the date of the Board's initial adoption of the Plan. Options may be granted prior to such stockholder approval; *provided, however*, that such Options shall not be exercisable prior to the time when the Plan is approved by the stockholders; *provided, further* that if such approval has not been obtained by the end of said twelve (12)-month period, all Options previously granted under the Plan shall thereupon terminate and be canceled and become null and void without being exercised.

7.8 Effect Upon Other Plans. The adoption of the Plan shall not affect any other compensation or incentive plans in effect for the Company, any Parent or any Subsidiary. Nothing in the Plan shall be construed to limit the right of the Company, any Parent or any Subsidiary (a) to establish any other forms of incentives or compensation for Employees of the Company or any Parent or any Subsidiary, or (b) to grant or assume Options otherwise than under the Plan in connection with any proper corporate purpose, including, but not by way of limitation, the grant or assumption of options in connection with the acquisition, by purchase, lease, merger, consolidation or otherwise, of the business, stock or assets of any corporation, firm or association.

7.9 Conformity to Securities Laws. Notwithstanding any other provision of the Plan, the Plan and the participation in the Plan by any individual who is then subject to Section 16 of the Exchange Act shall be subject to any additional limitations set forth in any applicable exemption rule under Section 16 of the Exchange Act (including any amendment to Rule 16b-3 of the Exchange Act) that are requirements for the application of such exemptive rule. To the extent permitted by applicable law, the Plan shall be deemed amended to the extent necessary to conform to such applicable exemptive rule.

7.10 Notice of Disposition of Shares. Each Participant shall give the Company prompt notice of any disposition or other transfer of any shares of Common Stock, acquired pursuant to the exercise of an Option, if such disposition or transfer is made (a) within two (2) years after the applicable Grant Date or (b) within one (1) year after the transfer of such shares of Common Stock to such Participant upon exercise of such Option. The Company may direct that any certificates evidencing shares acquired pursuant to the Plan refer to such requirement.

7.11 Tax Withholding. The Company or any Parent or any Subsidiary shall be entitled to require payment in cash or deduction from other compensation payable to each Participant of any sums required by federal, state or local tax law to be withheld with respect to any purchase of shares of Common Stock under the Plan or any sale of such shares.

7.12 Governing Law. The Plan and all rights and obligations thereunder shall be construed and enforced in accordance with the laws of the State of Delaware.

7.13 Notices. All notices or other communications by a participant to the Company under or in connection with the Plan shall be deemed to have been duly given when received in the form specified by the Company at the location, or by the person, designated by the Company for the receipt thereof.

7.14 Conditions To Issuance of Shares.

(a) Notwithstanding anything herein to the contrary, the Company shall not be required to issue or deliver any certificates or make any book entries evidencing shares of Common Stock pursuant to the exercise of an Option by a Participant, unless and until the Board or the Committee has determined, with advice of counsel, that the issuance of such shares of Common Stock is in compliance with all applicable laws, regulations of governmental authorities and, if applicable, the requirements of any securities exchange or automated quotation system on which the shares of Common Stock are listed or traded, and the shares of Common Stock are covered by an effective registration statement or applicable exemption from registration. In addition to the terms and conditions provided herein, the Board or the Committee may require that a Participant make such reasonable covenants, agreements, and representations as the Board or the Committee, in its discretion, deems advisable in order to comply with any such laws, regulations, or requirements.

(b) All certificates for shares of Common Stock delivered pursuant to the Plan and all shares of Common Stock issued pursuant to book entry procedures are subject to any stop-transfer orders and other restrictions as the Committee deems necessary or advisable to comply with federal, state, or foreign securities or other laws, rules and regulations and the rules of any securities exchange or automated quotation system on which the shares of Common Stock are listed, quoted, or traded. The Committee may place legends on any certificate or book entry evidencing shares of Common Stock to reference restrictions applicable to the shares of Common Stock.

(c) The Committee shall have the right to require any Participant to comply with any timing or other restrictions with respect to the settlement, distribution or exercise of any Option, including a window-period limitation, as may be imposed in the sole discretion of the Committee.

(d) Notwithstanding any other provision of the Plan, unless otherwise determined by the Committee or required by any applicable law, rule or regulation, the Company may, in lieu of delivering to any Participant certificates evidencing shares of Common Stock issued in connection with any Option, record the issuance of shares of Common Stock in the books of the Company (or, as applicable, its transfer agent or stock plan administrator).

7.15 Equal Rights and Privileges. Except with respect to sub-plans designed to be outside the scope of Section 423 of the Code, all Eligible Employees of the Company (or of any Designated Subsidiary) shall have equal rights and privileges under this Plan to the extent required under Section 423 of the Code or the regulations promulgated thereunder so that this Plan qualifies as an “employee stock purchase plan” within the meaning of Section 423 of the Code or the Treasury Regulations thereunder. Any provision of this Plan that is inconsistent with Section 423 of the Code or the Treasury Regulations thereunder shall, without further act or amendment by the Company or the Board, be reformed to comply with the equal rights and privileges requirement of Section 423 of the Code or the Treasury Regulations thereunder.

* * * * *

I hereby certify that the foregoing Unity Biotechnology, Inc. 2018 Employee Stock Purchase Plan was duly approved by the Board of Directors of Unity Biotechnology, Inc. on _____, 2018.

I hereby certify that the foregoing Unity Biotechnology, Inc. 2018 Employee Stock Purchase Plan was duly approved by the stockholders of Unity Biotechnology, Inc. on _____, 2018.

Executed on this _____ day of _____, 2018.

[Name, Title]

***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXECUTION COPY
CONFIDENTIAL

COMPOUND LIBRARY AND OPTION AGREEMENT

This Compound Library and Option Agreement (the "Agreement"), dated as of February 2nd, 2016 (the "Signing Date"), is made by and between **Ascentage Pharma Group Corp. Ltd.**, a Hong Kong corporation ("Ascentage"), with a business address at 11/F, AXA CENTRE, Gloucester Road, Wanchai, Hong Kong, and **Unity Biotechnology, Inc.**, a Delaware corporation ("Unity"), with a business address at 1700 Owens Street, Suite 535, San Francisco, California 95158. Ascentage and Unity are sometimes referred to herein as individually as a party and collectively as the parties.

BACKGROUND

- A. Ascentage is in the business of developing and commercializing therapeutic agents for the treatment of cancer and related conditions;
- B. Unity is in the business of developing and commercializing therapeutic agents intended to delay aging and treat age-related conditions;
- C. Unity and Ascentage have entered into that certain license agreement (the "APG-1252 License Agreement") of even date herewith pursuant to which Unity obtained a license to commercialize that certain BCL-2/BCL-xL inhibitor known as "APG-1252" for treatment of age-related conditions.
- D. Ascentage possesses a collection of additional BCL-2/BCL-xL inhibitor compounds, some of which may be useful in the treatment of age-related conditions;
- E. Unity and Ascentage have entered into a research agreement of even date herewith pursuant to which Unity will fund research by Ascentage intended to discover additional BCL-2/BCL-xL inhibitor compounds;
- F. Unity desires to obtain the right to screen Ascentage's collection of BCL-2/BCL-xL inhibitor compounds as well as any additional BCL-2/BCL-xL inhibitor compounds discovered by Ascentage during the term of this Agreement (including any such compounds discovered pursuant to the aforementioned research agreement) to identify compounds with potential utility in the treatment of age-related conditions other than Oncology Indications (as defined below);
- G. Ascentage is willing to permit Unity to conduct the above described screening on the terms and conditions set forth in this Agreement.

NOW, THEREFORE, for and in consideration of the covenants, conditions and undertakings hereinafter set forth, it is agreed by and between the parties as follows:

ARTICLE 1 DEFINITIONS

As used herein, the following terms will have the meanings set forth below:

1.1 "Active Compound" means an Ascentage Active Compound or a Unity Active Compound, as applicable.

1.2 "Affiliate" means with respect to a particular party, another person that controls, is controlled by or is under common control with such party. For the purposes of the definition in this Section 1.2, the word "control" (including, with correlative meaning, the terms "controlled by" or "under the common control with") means the actual power, either directly or indirectly through one or more intermediaries, to direct or cause the direction of the management and policies of such entity, whether by the ownership of at least fifty percent (50%) of the voting stock of such entity, or by contract or otherwise.

1.3 "Ascentage Active Compound" means any Compound designated by Ascentage as an Active Compound in accordance with the Section 2.6.

1.4 "Ascentage Future Compounds" means any BCL-2/BCL-xL inhibitor compounds generated by or on behalf of Ascentage during the Term, but specifically excluding Unity Future Compounds.

1.5 "Ascentage Intellectual Property" means all Patents and Technology owned or Controlled by Ascentage or its Affiliates during the Term.

1.6 "Carved Out Indication" means any indication that is not an Oncology Indication and that [***] a compound that acts through the BCL-2 pathway to the [***] (e.g., [***]).

1.7 "Collaboration Period" means the period of time commencing on the Effective Date and continuing until expiration or earlier termination of the Research Agreement.

1.8 "Compounds" means (a) the Existing Compounds, (b) the Future Ascentage Compounds, and (iii) the Unity Compounds, and "Compound" means a single compound from any of the foregoing categories of compounds.

1.9 "Compound Information" means with respect to a given Compound, a brief summary of all material data readily available and known to Ascentage that relate to the biological activity of such Compound.

1.10 "Compound-Related Patents" means Patents within the Ascentage Intellectual Property that are directed to one or more Compounds.

1.11 "Compound Screening" has the meaning provided in Section 2.4.

1.12 "Control" and its correlative terms, "Controlled" or "Controls" shall mean, with respect to any Patent or item of Technology, that a Party or one of its Affiliates owns or possesses rights to such Patent or item of Technology sufficient to grant the access, license or sublicense contemplated in this Agreement without violating the terms of any agreement or other arrangement with any Third Party.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

1.13 “Effective Date” shall mean the date on which the Second Amendment takes effect.

1.14 “[***]” means the [***] to be negotiated by the parties pursuant to Section 4.2.3(c)(iv).

1.15 “Exclusive Evaluation Period” shall mean with respect to a given compound, the period commencing on the date of delivery of the New Compound Report disclosing such compound (and in the case of a Unity Compound, the [***]) and ending on the last day of the [***] following the [***] in which the Exclusive Evaluation Period commenced.

1.16 “Existing Compounds” means the [***] BCL-2/BCL-xL inhibitor compounds collectively comprising Ascentage’s BCL-2/BCL-xL library as of the Effective Date, and includes the [***] BCL-2/BCL-xL inhibitor compounds previously provided to Unity by Ascentage for analysis under that certain Materials Transfer Agreement entered into by the parties on March 19, 2015 (“Prior Compounds”). Notwithstanding the foregoing, APG-1252 shall not be considered an Existing Compound for purposes of this Agreement.

1.17 “Grace Period” means a period of [***] ([***]) to [***] ([***]) [***] following the expiration or earlier termination of the Collaboration Period. The length of the Grace Period shall be determined based on the duration of the Collaboration Period in accordance with the following:

1.17.1 If the duration of the Collaboration Period is [***] but less than [***], the Grace Period shall be [***] ([***]) [***];

1.17.2 If the duration of the Collaboration Period is [***] but less than [***], the Grace Period shall be [***] ([***]) [***];

1.17.3 If the duration of the Collaboration Period is at least [***] but less than [***], the Grace Period shall be [***] ([***]) [***];

1.17.4 If the duration of the Collaboration Period is [***] or more, the Grace Period shall be [***] ([***]) [***].

1.18 “Greater China” means the People’s Republic of China, Hong Kong, Macau and Taiwan.

1.19 “IND” means (a) an Investigational New Drug Application as defined in the United States Federal Food, Drug and Cosmetic Act, as revised, or (b) the equivalent application in any other regulatory jurisdiction outside of the United States of America, the filing of which is necessary to commence or conduct clinical testing of a pharmaceutical product in humans in such jurisdiction.

1.20 “Jiangsu Ascentage” means Jiangsu Ascentage Pharma Development Ltd. (□□□□□□□□□□).

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

1.21 "JRC" or "Joint Research Committee" has the meaning set forth in Section 5.1.

1.22 "Library" means, at any point in time, the collection of Compounds then available for screening in accordance with the terms of this Agreement.

1.23 "Oncology Indications" means indications where [***].

1.24 "Patents" means the rights and interests in and to issued patents and pending patent applications in any country, including all provisional applications, substitutions, continuations, continuations-in-part, divisions, and renewals, all letters patent granted thereon, and all reissues, reexaminations and extensions thereof.

1.25 "Research Agreement" means that certain research agreement of even date herewith, a copy of which is attached as Exhibit 1.25.

1.26 "Senolytic Test" means the assay described in Exhibit 1.26, Part A hereto.

1.27 "Technology" means all inventions, discoveries, improvements, trade secrets and proprietary methods and materials, whether or not patentable, directly relating to one or more Compounds, in each case that is Controlled by Ascentage or its Affiliates during the term of this Agreement and is necessary or reasonably useful to Unity in exercising its rights or performing its obligations under this Agreement, including (a) methods of production or use of, Compounds and (b) data, formulations and techniques arising from the synthesis or characterization of Compounds.

1.28 "Third Party" means any person or entity other than Unity and Ascentage.

1.29 "UM License Agreement" means that certain license agreement entered into by Ascentage and the Regents of the University of Michigan ("UM") effective as of December 1, 2010, as amended by all amendments to such license agreement existing as of the Effective Date.

1.30 "Unity Active Compounds" means any Compound designated by Unity as an Active Compound in accordance with the Section 2.5.

1.31 "Unity Compounds" means the chemical compounds discovered or synthesized by (a) Ascentage pursuant to the Research Agreement and/or (b) [***] pursuant to the UM Sponsored Research Agreement (as further defined in Section 2.3.1 below).

ARTICLE 2 COMPOUND SELECTION AND EVALUATION

2.1 Objectives. The parties shall each have a right to screen the Library to identify Compounds of potential interest as further described in this Article 2.

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2.2 Existing Compound Delivery.

2.2.1 Within [***] ([***]) business days following the Effective Date, Ascentage shall provide Unity with access to the Compound Information described in Section 1.9 for all Existing Compounds. In addition, together with such Compound Information Ascentage shall provide Unity with the chemical structure of all Existing Compounds, provided that Ascentage shall not be obligated to provide Unity with the structure of any Existing Compounds for which Patents have been not been filed until such time as Patents have been filed with respect to such Compounds. Ascentage agrees to provide Unity with periodic updates disclosing to Unity the structures of any Compounds for which Patents were recently filed.

2.2.2 Upon Unity's request, Ascentage shall supply to Unity at least [***] ([***]) [***] of each of the Existing Compounds requested by Unity, with each such Compound to be supplied in a formulation as described in Exhibit 2.2. Ascentage shall use its commercially reasonable efforts to ensure delivery of such newly synthesized Compounds within [***] ([***]) business days following the date when Ascentage receives Unity's written request. At the time of delivery of such Existing Compounds, Ascentage shall also provide Unity with any Compound Information for such Compounds not previously supplied to Unity pursuant to Section 2.2.1. Ascentage shall provide supplemental information regarding the Compounds as reasonably requested by Unity for use in Unity's screening and evaluation of the Compounds [***]. Notwithstanding the foregoing, the parties acknowledge that Ascentage has previously provided Unity with the Prior Compounds and that Ascentage's supply obligation under this Section 2.2.2 with respect to such Prior Compounds (other than with respect to Compound Information and chemical structures for such Prior Compounds not previously supplied to Unity) is deemed satisfied in full as of the Effective Date.

2.2.3 To the extent that Ascentage does not possess sufficient quantities of one or more Existing Compounds to provide Unity with at least [***] ([***]) [***] of the Existing Compound(s) requested by Unity under Section 2.2.2, Ascentage agrees to synthesize additional quantities of such Compound(s) for delivery to Unity and Unity shall reimburse Ascentage for such delivered Compound(s) at [***], which shall not exceed [***] Dollars (\$[***]) per Compound without Unity's prior written approval. Ascentage shall [***] delivery of such newly synthesized Compounds within [***] ([***]) business days following the date when Ascentage receives Unity's written request. Notwithstanding the foregoing, in the event that Ascentage projects that [***] will exceed [***] Dollars (\$[***]) and Unity does not agree to reimburse Ascentage for such additional projected costs, Ascentage shall not be obligated to supply Unity with the requested quantities of such Compound but shall at Unity's request [***] provide Unity or its designee with access and licenses to such Ascentage Intellectual Property as may be reasonably required to enable Unity or its designee to synthesize such Compound on its own, provided that Unity agrees that the licenses granted to it under this Section 2.2.3 shall: (a) be limited to the production of the named Compound(s) only, and (b) be limited to production of quantities of such Compound(s) of [***] or less.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

2.3 Addition of Ascentage Future Compounds and Unity Compounds to the Library.

2.3.1 UM Sponsored Research Agreement. Unity agrees to provide a total of \$[***] in funding over [***] years following the Effective Date to be used to fund the discovery of additional BCL-2/BCL-xL inhibitor compounds [***]. Promptly following the Effective Date, the parties shall agree upon and implement a strategy for providing such funding to UM through that certain research agreement entered into by Ascentage and UM effective as of September 24, 2013 (“UM SRA”), which strategy shall be based on the following principles: (a) the parties shall amend the UM SRA to (i) add a new Project Plan to accommodate such additional funding and (ii) ensure that the intellectual property generated by [***] in the performance of such new Project Plan is subject to the option described in Section 8.2 of the UM SRA, and (b) the parties shall agree upon and update the Research Agreement to include a process by which Ascentage shall exercise the option under Section 8.2 of the UM SRA with respect to inventions arising under the new Project Plan that Unity would like included within the Ascentage Intellectual Property for purposes of this Agreement and/or one or more Compound License Agreements.

2.3.2 Notification. Within [***] ([***)] business days after the end of each [***], Ascentage will supply to Unity a brief written report disclosing to Unity all Ascentage Future Compounds and Unity Compounds discovered by Ascentage [***] during the previous [***] (“New Compound Report”), such report to include the structure of each Compound disclosed therein and any additional information [***] available and known to Ascentage that [***] relates to such Compounds. Together with each such New Compound Report, Ascentage will supply to Unity at least [***] ([***)] [***] of each of the Unity Compounds disclosed in such report in a formulation as described in Exhibit 2.2 or as otherwise specified in the Research Agreement or UM Sponsored Research Agreement.

2.3.3 Addition to Library.

(a) Ascentage Future Compounds.

(i) During the Exclusive Evaluation Period, Ascentage shall have the exclusive right to assess the Ascentage Future Compounds disclosed in such report and to designate one or more of such Ascentage Future Compounds as Ascentage Active Compounds, with any such designations being made in accordance with the procedures described in Section 2.6 below.

(ii) Following the end of the Exclusive Evaluation Period, any Ascentage Future Compounds disclosed in the applicable New Compound Report shall thereafter be included within the Library and all such compounds that have not been designated as Ascentage Active Compounds shall thereafter be available for designation by either Party as an Active Compound in accordance with Sections 2.5 and 2.6 (as applicable). Upon addition of such Ascentage Future Compounds to the Library, Ascentage will promptly supply to Unity at least [***] ([***)] [***] of each such Ascentage Future Compound for screening and evaluation purposes.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(b) Unity Compounds. During the Exclusive Evaluation Period following the Unity's receipt of a given New Compound Report, Unity shall have the exclusive right to assess the Unity Compounds disclosed in such report and to designate one or more of such Unity Compounds as Unity Active Compounds, with any such designations being made in accordance with the procedures described in Section 2.5 below. Following the end of the Exclusive Evaluation Period, any Unity Compounds disclosed in the applicable New Compound Report shall thereafter be included within the Library and all such compounds that have not been designated as Unity Active Compounds shall thereafter be available for designation by either Party as an Active Compound in accordance with Sections 2.5 and 2.6 (as applicable).

2.4 Compound Screening and Analysis. During the Term, Unity shall have the right to screen and evaluate the Compounds in the Library to identify Compounds with senolytic activity and potential therapeutic utility for the prophylaxis and treatment of, and palliation of symptoms associated with, indications other than Oncology Indications (collectively, "Compound Screening"). Should Unity identify through such Compound Screening Compounds in the Library of interest to Unity for which Patents have not been filed, upon Unity's request, Ascentage agrees to use commercially reasonable efforts to promptly file Patents with respect such Compounds and thereafter (or to allow Unity to do so at its expense in accordance with Section 7.2) shall disclose to Unity the chemical structure of such Compounds. For clarity, Unity expressly agrees that it shall use the Compounds and Compound Information transferred to Unity solely for the limited purposes of Compound Screening and the evaluation, development and optimization of Compounds in accordance with the terms of this Agreement and that the Compounds and Compound Information transferred to Unity shall not otherwise be used in conducting any screening or research aimed at identifying Compounds for use in the prophylaxis or treatment of Oncology Indications.

2.5 Designation of Active Compounds by Unity. Unity shall have the right to designate Compounds as Active Compounds, as set forth in this Section 2.5.

2.5.1 General.

(a) Existing Compounds. Commencing on the Effective Date and continuing for the duration of Term, Unity shall have the right to designate one or more Existing Compounds as Unity Active Compound, by providing Ascentage with written notice as described in Section 2.5.2(a) below and subject to the requirements of Section 2.5.2(b) below. Notwithstanding anything to the contrary in this Agreement, Unity acknowledges and agrees that the [***].

(b) Ascentage Future Compounds. Commencing on expiration of the Exclusive Evaluation Period for the applicable Ascentage Future Compound and continuing for the duration of Term, Unity may designate one or more Ascentage Future Compounds disclosed in such report as a Unity Active Compound by providing Ascentage with written notice as described in 2.5.2(a) below and subject to the requirements of Section 2.5.2(b) below.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(c) Unity Compounds. Commencing on the date of Unity's receipt of any given New Compound Report and continuing for the duration of Term, Unity shall have the right to designate one or more Unity Compounds as Unity Active Compound, by providing Ascentage with written notice as described in Section 2.5.2(a) below and subject to the requirements of Section 2.5.2(b) below.

2.5.2 Designation Process and Requirements.

(a) Notice. To designate an Existing Compound, an Ascentage Future Compound or a Unity Compound as a Unity Active Compound, Unity shall so notify Ascentage of such selection in writing and provide Ascentage a description of the applicable Compound, including to the extent the chemical structure of the applicable Compound has been provided to Unity by Ascentage, its chemical structure.

(b) Additional Requirements. Each such designation shall be effective upon receipt by Ascentage provided that:

(i) The Compound to be designated as a Unity Active Compound is not currently a validly designated Ascentage Active Compound; and

(ii) The designation of such Compound as a Unity Active Compound does not bring the total number of Unity Active Compounds to more than fifteen (15).

2.6 Designation of Active Compounds by Ascentage.

2.6.1 General.

(a) Existing Compounds. Without prejudice to and acknowledging the designation of Ascentage Active Compounds as set forth in Section 2.5.1(a), commencing on the [***] ([***]) [***] anniversary of the Effective Date and continuing for the duration of Term, Ascentage shall have the right to designate one or more Existing Compounds as Ascentage Active Compounds, by providing Unity with written notice as described in Section 2.6.2(a) below and subject to the requirements of Section 2.6.2(b) below.

(b) Ascentage Future Compounds. Commencing on the date of Unity's receipt of any given New Compound Report and continuing for the duration of Term, Ascentage may designate one or more Ascentage Future Compounds disclosed in such report as an Ascentage Active Compound by providing Unity with written notice as described in 2.6.2(a) below and subject to the requirements of Section 2.6.2(b) below.

(c) Unity Compounds. Commencing on expiration of the Exclusive Evaluation Period for the applicable Unity Compound, Ascentage shall have the right to designate one or more Unity Compounds as Ascentage Active Compound, by providing Unity with written notice as described in Section 2.6.2(a) below and subject to the requirements of Section 2.6.2(b) below.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

2.6.2 Designation Process and Requirements.

(a) Notice. To designate an Existing Compound, an Ascentage Future Compound or a Unity Compound as an Ascentage Active Compound, Ascentage shall so notify Unity of such selection in writing and provide Unity a description of the applicable Compound, including its chemical structure and a copy of results of the biochemical assay to be described in Exhibit 2.6.

(b) Additional Requirements. Each such designation shall be effective upon receipt by Unity provided that:

(i) The Compound to be designated as an Ascentage Active Compound is not currently a validly designated Unity Active Compound; and

(ii) The designation of such Compound as an Ascentage Active Compound does not bring the total number of Ascentage Active Compounds to more than fifteen (15).

2.7 Maximum Number of Active Compounds; Release of Active Compounds.

2.7.1 Maximum Number of Active Compounds. The maximum number of Compounds that may be designated by a Party as Active Compounds at any one time is fifteen (15).

2.7.2 Release of Active Compounds. A Party may terminate its designation of any particular Active Compound at any time by so notifying the other Party in writing (specifying the Active Compound for which such designation is being terminated). From and after the date the other Party receives such notice of termination, the specified Compound shall cease to be an Active Compound for all purposes of this Agreement.

2.8 Technology Transfer. Within [***] ([***)] days of Unity's designation of a Compound as a Unity Active Compound, Ascentage shall provide access to Unity all necessary and [***] Technology [***] available to Ascentage with respect to such Compound.

2.9 Rejection of Compounds; Resupply of Compounds.

2.9.1 Rejection of Compounds for Non-Conformance. Unity may reject the delivery of any Compounds delivered pursuant to Section 2.2, 2.3.2, or 2.3.3(a)(ii) that fails to materially conform to the requirements of Exhibit 2.2, by written notice to Ascentage within [***] ([***)] days of delivery of such Compounds, accompanied by documentation of the non-conformance and any original experimental data related thereto. In the event of any nonconformance under this paragraph, Ascentage shall have [***] ([***)] days to cure. Compounds that are not rejected by Unity within [***] ([***)] days after delivery shall be deemed accepted.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

2.9.2 Resupply of Compounds. Unity shall have the right to manufacture or have manufactured additional quantities of Compounds already delivered pursuant to Section 2.2, 2.3.2, or 2.3.3(a)(ii), provided that at its election, Unity may obtain additional quantities of such Compounds by written order to Ascentage specifying the Compounds desired (“Re-supply Compounds”) and provided further that Unity [***].

ARTICLE 3 DESIGNATION OF DEVELOPMENT CANDIDATES

3.1 General. In the event that either Party elects to advance a Compound into formal preclinical development, such Party shall first designate such Compound as a Development Candidate in accordance with the procedures set forth in this Article 3. For clarity, neither Party shall initiate GLP toxicity studies, nor carry out any subsequent preclinical or clinical development, with respect to any Compound, unless such Compound has been designated as a Development Candidate, and then only for so long as such Compound retains such designation (or in the case of Unity, only for so long as Unity retains its license to such Compound under a Compound License Agreement).

3.2 Requirements for Designation.

3.2.1 Eligibility. To be eligible for designation as a Development Candidate by a given Party, a Compound must be a validly designated Active Compound of such Party (all such eligible Compounds, hereinafter referred to as “Eligible Compounds”).

3.2.2 Timing Requirements. Commencing on the Effective Date and continuing for the duration of Term, each Party shall have the right to designate one or more Eligible Compounds as Development Candidates, by providing the other Party with written notice as described in Section 3.3.1 below and subject to the other requirements of this Section 3.2.

3.2.3 Maximum Number of Development Candidates.

(a) Unity. The maximum number of Existing Compounds and Ascentage Future Compounds that may be designated as Unity Development Candidates at any one time is [***] ([***]), provided that Unity shall be entitled to designate an additional [***] ([***]) Existing Compounds and/or Ascentage Future Compounds as “Back-up Compounds” as described in Section 3.5 below. For clarity there shall be no limit on the number of Unity Compounds that Unity may designate as Unity Development Candidates.

(b) Ascentage. The maximum number of Unity Compounds that may be designated as Ascentage Development Candidates at any one time is [***] ([***]). For clarity there shall be no limit on the number of Existing Compounds and Ascentage Future Compounds that Ascentage may designate as Ascentage Development Candidates.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

3.3 Designation of Development Candidates.

3.3.1 Notice. To designate an Eligible Compound as a Development Candidate, the Party making such designation shall notify the other Party of such designation in writing and provide the other Party a clear description of the applicable Eligible Compound, including its chemical structure.

3.3.2 Mechanics of Designation.

(a) Unity. As soon as practicable (and within [***] ([***)] days) after Unity's designation of each Development Candidate in accordance with this Article 3), Unity and Ascentage shall complete and execute the form of Compound License Agreement set forth in Exhibit 3.3.2(a). To complete the form of Compound License Agreement, the Parties shall: (i) fill in the effective date of the Compound License Agreement with the date of the notice provided under Section 3.3.1 above; and (ii) specify the Eligible Compound being designated as Development Candidate. It is understood that once a notice of designation has been submitted in accordance with Section 3.3.1 above, then provided that such designation is otherwise compliant with the requirements of this Article 3, Ascentage shall be obligated to enter into a Compound License Agreement with respect to the applicable Eligible Compound. For clarity, the intent of the Parties is that each Development Candidate shall be the subject of a separate Compound License Agreement and that each Compound License Agreement shall apply to only a single Development Candidate.

(b) Ascentage. Notices of designation submitted by Ascentage in accordance with Section 3.3.1 above shall be effective upon receipt by Unity, provided that such designation is otherwise compliant with the requirements of this Article 3.

3.3.3 Termination of Development Candidate Status. A Party may terminate its designation of any particular Development Candidate at any time by so notifying the other Party in writing (specifying the Development Candidate for which such designation is being terminated), such notice in the case of a termination by Unity to take the form of a notice of termination under the Compound License Agreement for such Development Candidate. From and after the date the other Party receives such notice of termination, the specified Compound shall cease to be a Development Candidate for all purposes of this Agreement and shall be returned to the Library where it shall be available for selection as an Active Compound pursuant to Sections 2.5 and 2.6 (as applicable), provided that such terminated Development Candidate shall not be available for re-selection by the terminating Party as either an Active Compound or a Development Candidate for a period of [***] ([***)] [***] following the date notice of termination was provided to the non-terminating Party pursuant to this Section 3.3.3.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

3.4 Diligence Requirements.

3.4.1 Unity. With respect to each Compound designated as a Development Candidate, Unity shall meet the diligence requirements set forth in the Compound License Agreement for such Development Candidate. In the event that Unity fails to meet such diligence requirements and fails to cure such default in accordance with the terms of such Compound License Agreement, Unity's right to continue to develop such Development Candidate will terminate, all as further described in such Compound License Agreement.

3.4.2 Ascentage. With respect to each Compound designated as a Development Compound, Ascentage shall meet the diligence requirements set forth in Exhibit 3.4.2. In the event that Ascentage fails to meet such diligence requirements and fails to cure such default accordance with Section 12.2, Ascentage's right to continue to develop such Development Candidate will terminate, Ascentage shall [***] discontinue ([***) all development activities with respect to such Development Candidate.

3.5 Back-up Compounds.

3.5.1 Designation. At the time Unity designates a Development Candidate, Unity shall have the right to designate [***] Active Compound to be used to replace such Development Candidate in the event Unity elects to abandon development of such Development Candidate (each, a "Back-up Compound"), all as further specified in the applicable Compound License Agreements.

3.5.2 Exclusivity. Ascentage shall be free to conduct research with respect to the Back-up Compounds, provided that Ascentage hereby covenants that it shall not [***], nor shall it authorize any Third Party (including its Affiliates) to [***] with respect to any Back-up Compound until such time as such Back-up Compound is released in accordance with Section 3.5.3. For clarity, once a Back-up Compound has been released, such Compound shall be available for development and commercialization by Ascentage in accordance with the applicable terms of this Agreement.

3.5.3 Release of Back-up Compounds. A Back-up Compound shall be deemed to be released upon the first to occur of either of the following events: (a) the termination of the Compound License Agreement for the Development Compound with which such Back-up Compound is associated, or (b) the [***] anniversary of the [***] of the Development Compound with which such Back-up Compound is associated. For clarity, it is acknowledged that a condition of Unity's maintaining its license with respect to any given Development Compound is that Unity meet the diligence requirements set forth in the Compound License Agreement for such Development Candidate. It is further acknowledged that in the event that Unity fails to meet such diligence requirements and fails to cure such

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default in accordance with the terms of such Compound License Agreement, Unity's right to continue to develop such Development Candidate will terminate, and any Back-up Compound associated with such Development Compound shall be released, all as further described in such Compound License Agreement.

ARTICLE 4
EXCLUSIVITY/RESTRICTIONS ON COMPOUND DEVELOPMENT

4.1 Unity.

4.1.1 No [***] of Ascentage Development Candidates. Unity hereby covenants that it shall not conduct, nor shall it authorize any Third Party (including its Affiliates) to conduct, any [***] with respect to any Compound that Ascentage has designated as a Development Candidate in accordance with the terms of Article 3 for so long as that Compound remains designated as an Ascentage Development Candidate (and in the case that [***]).

4.1.2 No Initiation of GLP Toxicology Studies without designation as a Development Candidate. Unity hereby covenants that it shall not initiate, nor shall it authorize any Third Party (including its Affiliates) to initiate, GLP toxicology studies (or any subsequent studies) with respect to any Compound which it has not designated as a Development Candidate in accordance with Article 3.

4.1.3 No Development for Oncology Indications. Unity hereby covenants that it shall not research or develop, nor shall it authorize any Third Party (including its Affiliates) to research or develop, any Compound for the diagnosis, prophylaxis, treatment or palliation of any Oncology Indications.

4.2 Ascentage.

4.2.1 No Initiation of GLP Toxicology Studies without designation as a Development Candidate. Ascentage hereby covenants that it shall not initiate, nor shall it authorize any Third Party (including its Affiliates) to initiate, GLP toxicology studies (or any subsequent studies) with respect to any Compound which it has not designated as a Development Candidate in accordance with Article 3.

4.2.2 Unity Compounds. Ascentage hereby covenants that it shall not research or develop, nor shall it authorize any Third Party (including its Affiliates) to research or develop, any Unity Compound for the diagnosis, prophylaxis, treatment or palliation of any indications that are not Oncology Indications. The foregoing restriction will survive the termination or expiration of this Agreement for any reason.

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4.2.3 Existing Compounds and Future Ascentage Compounds.

(a) Restrictions on Development for Indications Being Developed by Unity. Ascentage hereby covenants that it shall not develop or commercialize, nor shall it authorize any Third Party (including its Affiliates) to develop or commercialize, any Existing Compound or Future Ascentage Compound for the diagnosis, prophylaxis, treatment or palliation of any indication which:

(i) [***]: (A) [***], or (B) [***] with respect to an [***] in compliance with [***]. The foregoing restriction will survive on an indication-by-indication basis for so long as [***] or [***]. [***] agrees to [***] all indications which [***]. Additionally, [***] agrees to [***].

(ii) is one of up to [***] ([***) indications [***] as being an indication with respect to which [***] within [***] ([***) [***] of [***] (each, an “[***)”). Upon [***], [***] will [***]. The exclusivity granted to Unity with respect to such [***] will [***], such that (A) following the [***], if an [***] with respect to [***], then [***], (B) following the [***], if an [***] with respect to [***], then [***], and [***] until the [***], at which point this Section 4.2.3(a)(ii) shall be of no further force and effect.

(iii) As used herein, an “[***)” with respect to a given indication, means that either: (A) [***], or (B) either [***] or [***].

(iv) For clarity, it is understood that (A) Unity’s rights to develop Compounds are limited to the development of Compounds for indications other than Oncology Indications, and (B) this Section 4.2.3(a) shall in no way restrict Ascentage’s right to develop and commercialize Existing Compounds or Future Ascentage Compounds for Oncology Indications.

(b) General Restrictions on Development outside of Oncology Indications. Within the Grace Period, Ascentage hereby covenants that it shall not research or develop any Existing Compounds or Future Ascentage Compounds for the diagnosis, prophylaxis, treatment or palliation of any indication that is not an Oncology Indication unless such Existing Compound or Future Ascentage Compound [***].

(c) Restrictions on Development of Carved Out Indications. Without limiting Section 4.2.3(a) and (b) above, Ascentage further covenants that it will not develop nor shall it authorize any Third Party (including its Affiliates) to develop, any Compound for a Carved Out Indication except as permitted under this Section 4.2.3(c).

(i) No more than [***] in any rolling [***] ([***) [***] period, Ascentage may request permission to develop [***] (“Subject Compound”) for prophylaxis or treatment of one or more Carved Out Indications (“Subject Indications”). Such request shall be submitted in writing and shall include a description of the Compound (including its structure), a [***] below, and a description of the Carved Out Indication(s) proposes to pursue.

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(ii) Unity shall not withhold its consent with respect to such validly submitted request, so long as:

(A) [***];

(B) [***];

(C) [***].

(iii) Upon approval by Unity of such request (which approval shall be provided in writing), Ascentage shall be free to pursue the development of the Subject Compound for the Subject Indication(s) provided that:

(A) The [***] may be developed shall be limited to [***];

(B) Unity shall have a right of first refusal with respect to development and commercialization of such Subject Compound as further described in Article 8 below.

(iv) The Parties will negotiate and agree upon [***] for use under Section 4.2.3(c)(ii)(B) within [***] immediately after the Effective Date of this Agreement (“[***]”). Ascentage will appoint [***] and Unity will appoint [***] to negotiate such agreements on their respective behalf. Once agreed upon, the [***] shall be appended hereto as [***].

ARTICLE 5 MANAGEMENT

5.1 Joint Research Committee. Ascentage and Unity will establish a committee (the “Joint Research Committee” or “JRC”) to coordinate the parties activities under this Agreement. The responsibilities of the Joint Research Committee shall consist of:

5.1.1 Facilitating the exchange of materials and information between the parties;

5.1.2 Monitoring and reporting of the discovery of Ascentage Future Compounds and Unity Compounds;

5.1.3 Reviewing and discussing issues that may arise involving the designation or release of Active Compounds;

5.1.4 Initial, informal mediation of any other dispute that arises under this Agreement; and

5.1.5 Such other responsibilities as both parties may mutually agree to delegate to the JRC.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

5.2 Membership. The JRC shall include two (2) representatives of each of Ascentage and Unity, with each party's members selected by that party. Ascentage and Unity may each replace its JRC representatives at any time, upon written notice to the other party.

5.3 Meetings. The JRC shall meet at least [***], or more frequently as agreed by the parties, at such locations as the parties agree, and will otherwise communicate regularly. With the consent of the parties, other representatives of Ascentage or Unity may attend JRC meetings as nonvoting observers. Each party shall be responsible for all of its own expenses associated with attendance of such meetings.

5.4 Decision Making. With respect to decisions taken on matters placed by either party before the JRC, each party shall have one vote. Decisions of the JRC shall be made by unanimous approval of the parties. If the members of the JRC cannot reach an agreement after commercially reasonable efforts to do so, then either party's representative to the JRC may refer such dispute to the [***] of each party, who shall meet in person or by telephone within [***] ([***)] days after such referral to attempt in good faith to resolve such dispute.

ARTICLE 6 PAYMENTS

6.1 Upfront Fee. As partial consideration for the rights and licenses granted to Unity under this Agreement, Unity shall issue to Ascentage, subject to Ascentage's execution and delivery to Unity of a Stock Issuance Agreement in substantially the form attached hereto as Exhibit 6.1 – part A (such form of agreement, the "Stock Agreement"), Three Hundred Ninety Three Thousand Three Hundred Thirty Five (393,335) shares of Unity common stock; such shares to be issued to Ascentage within [***] ([***)] days of the Effective Date. A capitalization table for Unity true and complete as of the Effective Date, is attached hereto as Exhibit 6.1 – part B.

6.2 First Locally-Dosed Licensed Compounds. Upon Unity's designation of each of the first two (2) locally-dosed Development Candidates, Unity shall issue to Ascentage Three Hundred Ninety Three Thousand Three Hundred Thirty Five (393,335) shares of Unity common stock, for each locally dosed Development Candidate; such shares to be issued to Ascentage pursuant to the Stock Agreement within [***] ([***)] days of date a Compound License Agreement is executed with respect to such Development Candidate.

6.3 Equity Cap. Notwithstanding anything in the contrary in this Agreement, any Compound License Agreement or the APG-1252 License Agreement, the maximum cumulative aggregate number of shares of Unity common stock that Ascentage is eligible to receive under Sections 6.1 and 6.2 of this Agreement, Section 5.1 of all Compound License Agreements and Section 5.1 of the APG-1252 License Agreement is:

(a) [***] ([***)] shares of Unity common stock if only one Licensed Product is developed; and

(b) Three Million Nine Hundred Thirty Three Thousand Three Hundred and Fifty (3,933,350) shares of Unity common stock if two or more Licensed Products is developed.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

6.4 Purchase of Ascentage Shares.

6.4.1 Disclosure of Series B Documentation. Promptly following the Effective Date, Ascentage shall provide to Unity true and correct copies of all of the relevant documents related to Jiangsu Ascentage's most recent financing, including without limitation, the investment agreement, any stockholders agreement, and the charter documents (collectively the "Series B Documentation")

6.4.2 First Tranche of Preferred Stock. Within [***] ([***)] days of the later of the Effective Date and Unity's receipt of the Series B Documentation, Unity shall purchase \$[***] of Jiangsu Ascentage's equity, at the same price and on the same terms as those applicable to the investors that participated in Jiangsu Ascentage's most recent financing.

6.4.3 Second Tranche of Preferred Stock. Within [***] ([***)] days of the later of the Effective Date and Unity's receipt of the Series B Documentation, Unity shall purchase an additional \$[***] of Ascentage's preferred stock at a valuation equal to the greater of (a) \$[***] on terms that are otherwise *pari passu* to the terms of the most recent financing, and (b) the most recent preferred stock valuation if Jiangsu Ascentage consummates a stock financing after the Effective Date, in which case Unity shall purchase such shares at the same price and on the same terms as those applicable to the investors that participated in such financing.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

6.5 Board Observer. After the purchase \$[***] of Jiangsu Ascentage's equity by Unity, Ascentage shall invite a representative of [***], initially [***], to attend in all meetings of its board of directors (including committees thereof) in a non-voting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents, and other materials that it provides to its directors; *provided, however*, that Ascentage reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if (a) access to such information or attendance at such meeting could adversely affect the attorney-client privilege between Ascentage and its counsel; or (b) access to such information or attendance at such meeting could result in disclosure of trade secrets to Unity.

6.6 Unity's Covenants. Unity hereby agrees that any shares of common stock issued to Ascentage will not be diluted unless diluted in good faith by Unity on a proportionate basis to other shares of common stock of Unity outstanding at the time of any such dilution, and subject to the anti-dilution protections as set forth in Unity's certificate of incorporation, as may be amended from time to time in good faith; provided further, that Unity shall not take actions that specifically treat Ascentage differently from other holders of common stock, or issue any capital stock in a manner which is intended to circumvent this covenant. The shares of common stock issued to Ascentage shall be duly adjusted for any bonus issue, share split, consolidation, subdivision, reclassification, recapitalization or similar arrangement of Unity, in each case in accordance with, and as expressly contemplated by, Unity's certificate of incorporation, as may be amended from time to time in good faith.

ARTICLE 7 INTELLECTUAL PROPERTY

7.1 License Grants to Unity.

7.1.1 License to Conduct Compound Screening. Subject to the terms and conditions of this Agreement, Ascentage hereby grants to Unity an non-exclusive license under the Ascentage Intellectual Property solely to carry out Compound Screening of the Compounds in the Library;

7.1.2 License to Develop Unity Active Compounds. Subject to the terms and conditions of this Agreement, Ascentage hereby grants to Unity a license co-exclusive with Ascentage under the Ascentage Intellectual Property to develop Active Compounds for the prophylaxis and treatment of, and palliation of symptoms associated with, indications that are not Oncology Indications..

7.1.3 License to Manufacture Compounds. Subject to the terms and conditions of this Agreement, Ascentage hereby grants to Unity an non-exclusive license under the Ascentage Intellectual Property to manufacture or have manufactured additional quantities of Compounds previously delivered pursuant to Section 2.2, 2.3.2, or 2.3.3(a)(ii) solely for use in accordance with Sections 7.1.1 and 7.1.2. above.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

7.2 Prosecution of Compound-Related Patents. Subject to Unity's rights under any Compound License Agreements then in effect, Ascentage shall have the first right, but shall not be obligated under this Agreement, to prosecute and maintain Compound-Related Patents as it deems commercially reasonable and necessary. Ascentage shall bear all patent costs that it incurs in relation to the filing, prosecution and maintenance of the Compound-Related Patents under this Agreement. Unity shall have the right, at its own cost and expense, to reasonably assist Ascentage in connection with the filing, prosecution and maintenance of any Compound-Related Patent covering any Compound [***]. If Ascentage, prior or subsequent to filing any Compound-Related Patent anywhere in the world, elects not to file, prosecute or maintain such Patent or claims encompassed by such Patent in any country of the world, as the case may be, Ascentage shall give Unity notice thereof within [***] prior to allowing such Patent or such claims encompassed by such Patent to lapse or become abandoned or unenforceable, and Unity shall thereafter have the right, at its sole expense and [***], to prepare, file, prosecute and maintain such Patent or claims encompassed by such Patent in such country.

7.3 Interferences, Oppositions, Enforcement. As between the parties and subject to Unity's rights under any Compound License Agreements then in effect, Ascentage shall have the sole right (but not the obligation), at its expense, to conduct any interferences, oppositions, or reexaminations with respect to any Patents within the Ascentage Intellectual Property (including without limitation, the Compound-Related Patents), to request any reissues or patent term extensions thereof, and to initiate and prosecute enforcement actions against Third Parties infringing such Patents.

7.4 No Other Rights. No rights other than those expressly set forth in this Agreement are granted to either party hereunder, and no additional rights shall be deemed granted to either party by implication, estoppel or otherwise.

ARTICLE 8 RIGHT OF NOTICE AND OFFER FOR ASCENTAGE PRODUCTS FOR CARVED OUT INDICATIONS

8.1 Ascentage Notice. In the event that Ascentage wishes to pursue development and commercialization of Subject Compound for use in treating one or more Subject Indications, Ascentage shall deliver written notice to Unity of Ascentage's interest in pursuing the development of such Subject Compound together with a description of the Subject Indications it is proposing to pursue in reasonable detail to permit Unity to evaluate its interest in such opportunity.

8.2 Unity Notice. Within [***] ([***)] calendar days of Unity's receipt of such notice and description of the Subject Compound and Subject Indication(s), Unity will provide Ascentage with written notice either that (i) Unity is not interested in developing such Subject Compound for one or more of the Subject Indications, or (ii) Unity is interested in developing such Subject Compound for one or more of the Subject Indications. If Unity fails to deliver any notice within such [***] ([***)]-day period, Unity will be deemed to have provided notice that it is not interested in developing such Subject Compound for one or more of the Subject Indications, in which case Ascentage will be free to develop and commercialize such Subject Compound for such Subject Indication(s) provided that such Subject Compound and Subject Indications are otherwise compliant with the requirements of Section 4.2.3.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

8.3 Entry into New Compound License Agreement. If Unity provides Ascentage with timely notice under Section 8.2 above that it is interested in developing such Subject Compound for one or more of the Subject Indications, Unity and Ascentage shall promptly complete and execute the form of Compound License Agreement set forth in Exhibit 3.3.2(a). It is understood that Unity's continuing rights to such Subject Compound shall be dependent upon Unity achieving the applicable diligence milestones set forth therein, all as further specified in such Compound License Agreement.

8.4 Negotiation of Form JV Agreement. The Parties agree that they will negotiate and agree to form agreements relating to joint venture to be established for the purpose of commercializing the Licensed Products in the Greater China within [***] immediately after the Effective Date of this Agreement. Ascentage will appoint [***] and Unity will appoint [***] to negotiate such agreements on their respective behalf. Neither Party may develop, manufacture, distribute, sell or otherwise commercialize the Licensed Products in the Greater China other than through the joint venture formed pursuant to this Agreement and the Compound License Agreement.

ARTICLE 9 CONFIDENTIALITY

9.1 Confidential Information. Except as otherwise expressly provided herein, the parties agree that the receiving party shall not, except as expressly provided in this Article 9, disclose to any Third Party or use for any purpose any proprietary information which is disclosed to it (whether orally or in writing) and identified as confidential ("Confidential Information"), except to the extent that it can be established by the receiving party by competent proof that such information:

- (a) Was already known to the receiving party, other than under an obligation of confidentiality, at the time of disclosure;
- (b) Was generally available to the public or otherwise part of the public domain at the time of its disclosure to the receiving party;
- (c) Became generally available to the public or otherwise part of the public domain after its disclosure and other than through any act or omission of the receiving party in breach of this Agreement;
- (d) Was independently developed by the receiving party without reference to information provided by the disclosing party as demonstrated by documented evidence prepared contemporaneously with such independent development; or
- (e) Was disclosed to the receiving party, other than under an obligation of confidentiality, by a Third Party who had no obligation to the disclosing party not to disclose such information to others.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

9.2 Permitted Use and Disclosures. Each party hereto may use or disclose Confidential Information disclosed to it by the other party to the extent such use or disclosure (a) is reasonably necessary in the exercise of the rights granted to it hereunder or in carrying out its obligations hereunder, or (b) in prosecuting or defending litigation and complying with applicable governmental laws, regulations or court order, provided that if a party is required by law to make any such disclosure, other than pursuant to a confidentiality agreement, it will give reasonable advance notice to the other party of such disclosure and, save to the extent inappropriate in the case of patent applications or the like, will use its reasonable efforts to secure confidential treatment of such information in consultation with the other party prior to its disclosure (whether through protective orders or otherwise) and disclose only the minimum necessary to comply with such requirements.

9.3 Nondisclosure of Terms. Each of the parties hereto agrees not to disclose the terms of this Agreement to any Third Party without the prior written consent of the other party hereto, which consent shall not be unreasonably withheld, except to such party's attorneys, advisors, investors and others on a need to know basis under circumstances that reasonably ensure the confidentiality thereof, or to the extent required by law.

9.4 Public Announcement. Unity may, in its discretion, issue a press release announcing the formation of this Agreement, which shall be substantially in a form approved by Ascentage prior to execution of the Agreement. Except with respect to such initial release, neither party shall issue an additional press release or public announcement relating to this Agreement without the prior written approval of the other party, which shall not be withheld unreasonably. Either party may refer to the research collaboration under this Agreement in promotional and other communications with prospective customers and investors, provided that such disclosure shall not include any technical details or any financial terms of the collaboration.

ARTICLE 10 REPRESENTATIONS AND WARRANTIES

10.1 Warranty. Each party represents and warrants on its own behalf and on behalf of its Affiliates that: (a) it has the legal power and authority to enter into this Agreement and to perform all of its obligations hereunder; (b) this Agreement is a legal and valid obligation binding upon it and enforceable in accordance with its terms; and (c) it has not previously granted, and during the term of this Agreement will not make any commitment or grant, any rights which are in conflict in any material way with the rights and licenses granted herein.

10.2 Additional Ascentage Warranties. Ascentage represents and warrants on its own behalf and on behalf of its Affiliates that as of the Effective Date:

10.2.1 there are no actual or pending actions, suits or claims, by any third party (a) challenging the ownership of the Existing Compounds; (b) challenging the validity, effectiveness, enforceability, or ownership of Ascentage Intellectual Property.

10.2.2 The Patents within the Ascentage Intellectual Property are subsisting, in force or pending, as the case may be, and are not the subject of any interference, reissue, reexamination, opposition, cancellation or similar administrative proceedings.

10.2.3 Ascentage has not brought a claim alleging an infringement by a Third Party of any of the Patents within the Ascentage Intellectual Property and to Ascentage's actual knowledge, there is no actual or alleged infringement by a Third Party of any of the Patents within the Ascentage Intellectual Property.

10.2.4 there are no Patents: (a) filed by Ascentage and subsequently assigned to Third Party, or (b) with respect to which Ascentage or its Affiliates have acquired rights from a Third Party (i.e., through in-licenses, cross-licenses or otherwise), in each case that (i) would be required for Unity to research, develop, manufacture, use or commercialize the Existing Compounds and (ii) are not included within the Ascentage Intellectual Property.

10.2.5 there are no actual or pending actions, suits or claims, by any Third Party asserting that the manufacture, use, sale, offer for sale or importing of a Compound infringes the intellectual property of a Third Party and to Ascentage's knowledge, the development and commercialization of the Compounds would not infringe (a) any issued Patents of any Third Party (other than Patents in-licensed from UM), or (b) any published Patent claim of any Third Party (other than claims of Patents in-licensed from UM) if such claim were to issue as published.

10.2.6 Ascentage has disclosed to Unity all material agreements with Third Parties in effect as of the Effective Date pursuant to which Ascentage Intellectual Property relating to BCL-2/BCL-xL inhibitors was licensed, acquired or sold.

10.2.7 The copy of UM License Agreement (including the first amendment to such license agreement) disclosed to Unity by Ascentage is a true, accurate, and complete copy of the UM License Agreement.

10.3 Certain Rights and Obligations under the UM License Agreement.

10.3.1 Ascentage shall not modify, amend or otherwise alter the UM License Agreement to the extent the same would materially and adversely affect Unity's rights under this Agreement.

10.3.2 Ascentage shall not (a) exercise or fail to exercise any right under the UM License Agreement or (b) provide or fail to provide any consent or approval with respect to any right or obligation under the UM License Agreement, in each case to the extent the same would materially and adversely affect Unity's rights under this Agreement.

10.3.3 Ascentage shall not unilaterally terminate the UM License Agreement.

10.4 Disclaimer. ASCENTAGE AND UNITY SPECIFICALLY DISCLAIM ANY GUARANTEE THAT THE RESEARCH UNDERTAKEN HEREUNDER WILL BE SUCCESSFUL, IN WHOLE OR IN PART. THE FAILURE OF THE PARTIES TO SUCCESSFULLY DEVELOP ACTIVE COMPOUNDS OR PRODUCTS WILL NOT CONSTITUTE A BREACH OF ANY REPRESENTATION OR WARRANTY OR OTHER OBLIGATION UNDER THIS AGREEMENT. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, UNITY AND ASCENTAGE MAKE NO REPRESENTATIONS AND EXTEND NO WARRANTIES OR CONDITIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE ASCENTAGE INTELLECTUAL PROPERTY, COMPOUNDS, OR INFORMATION DISCLOSED HEREUNDER, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, VALIDITY OF ANY TECHNOLOGY, PATENTED OR UNPATENTED, OR NONINFRINGEMENT OF THE INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES.

ARTICLE 11 INDEMNIFICATION

11.1 Ascentage. Ascentage agrees to indemnify and defend Unity and their respective directors, officers, employees, agents and their respective successors, heirs and assigns (the "Unity Indemnitees") against any losses, costs, claims, damages, liabilities or expense (including reasonable attorneys' and professional fees and other expenses of litigation) (collectively, "Liabilities") arising, directly or indirectly out of or in connection with Third Party claims, suits, actions, demands or judgments, to the extent (i) relating to any products based on the Compounds developed, manufactured, used, sold or otherwise distributed by or on behalf of Ascentage, its Affiliates, licensees or other designees including, without limitation, product liability and patent infringement claims, or (ii) resulting from a breach by Ascentage of its representations and warranties under this Agreement, except, in each case, to the extent such Liabilities result from the gross negligence or intentional misconduct of Unity.

11.2 Unity. Unity agrees to indemnify and defend Ascentage and their respective directors, officers, employees, agents and their respective heirs and assigns (the "Ascentage Indemnitees") against any Liabilities arising, directly or indirectly out of or in connection with Third Party claims, suits, actions, demands or judgments, to the extent resulting from a breach by Unity of its representations and warranties under this Agreement, except, in each case, to the extent such Liabilities result from the gross negligence or intentional misconduct of Ascentage.

11.3 Procedure. In the event that any Indemnitee intends to claim indemnification under this Article 11 it shall promptly notify the other party in writing of such alleged Liability. The indemnifying party shall have the right to control the defense thereof with counsel of its choice as long as such counsel is reasonably acceptable to Indemnitee; provided, however, that any Indemnitee shall have the right to retain its own counsel at its own expense, for any reason, including if representation of any Indemnitee by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such Indemnitee and any other party reasonably represented by such counsel in such proceeding. The affected Indemnitee shall cooperate with the indemnifying party and its legal representatives in the investigation of any action, claim or liability covered by this Article 11. The Indemnitee shall not compromise or settle any claim or suit, or voluntarily incur any expense with respect to any such claim or suit, in each case, without the prior written consent of the indemnifying party, which such party shall not be required to give.

ARTICLE 12
TERM AND TERMINATION

12.1 Term. This Agreement shall commence on the Effective Date and shall continue in full force and effect until the expiration of the applicable Grace Period ("Term"), unless terminated earlier as provided in this ARTICLE 12.

12.2 Termination for Breach. In the event of a material breach of this Agreement, the nonbreaching party shall be entitled to terminate this Agreement by written notice to the breaching party, if such breach is not cured within sixty (60) days after written notice is given by the nonbreaching party to the breaching party specifying the breach.

12.3 Effects of Termination.

12.3.1 Accrued Rights and Obligations. Termination of this Agreement for any reason shall not release either party hereto from any liability which, at the time of such termination, has already accrued to the other party or which is attributable to a period prior to such termination nor preclude either party from pursuing any rights and remedies it may have hereunder or at law or in equity with respect to any breach of this Agreement.

12.3.2 Return of Compound. Upon expiration or termination of this Agreement for any reason, Unity shall return to Ascentage all unused quantities of the Compounds, or destroy such quantities at the written request of Ascentage.

12.3.3 Survival. Articles 1 (Definitions), 8 (Right of Notice and Offer for Ascentage Products for Carved-Out Indications), 9 (Confidentiality), 10 (Representations and Warranties), 11 (Indemnification) 13 (Dispute Resolution) and 14 (Miscellaneous) and Sections 3.5, 4.2.3(a)(i) and (ii) (but only for the durations specified therein), 4.2.3(c), 6.4 and 12.3 shall survive the expiration or termination of this Agreement for any reason, provided that in the case of Sections 3.5, 4.2.3(a)(i), 4.2.3(a)(ii) and 4.2.3(c), survival of these sections shall be contingent upon Unity having fulfilled its obligations under Section 6.1. Except as otherwise provided in this Article 12, all rights and obligations of the parties under this Agreement shall terminate upon the expiration or termination of this Agreement.

12.4 Condition Precedent.

12.4.1 This Agreement is entered into subject to the condition precedent that Ascentage and UM agree upon and execute an amendment to the UM License Agreement ("Second Amendment") adjusting the royalties owing to UM in connection with the activities contemplated by this Agreement (including the attached Exhibits). All rights and obligations set forth in the Agreement shall only become effective upon the Effective Date.

12.4.2 Ascentage hereby agrees to use its commercially best efforts to complete and execute the Second Amendment as soon as reasonably practicable.

ARTICLE 13 DISPUTE RESOLUTION

13.1 Dispute Resolution.

13.1.1 Consultation. If an unresolved dispute (other than a dispute among members of the JRC regarding a decision of the JRC) arises out of or relates to this Agreement, or the breach thereof, either party may refer such dispute to the [***] of each party, who shall meet in person or by telephone within [***] ([***)] days after such referral to attempt in good faith to resolve such dispute. If such matter cannot be resolved by discussion of the respective [***]s within such [***] ([***)] days period (as may be extended by mutual agreement), either party shall be entitled to seek resolution of such dispute pursuant to Section 13.1.2 below.

13.1.2 Arbitration. If the parties are unable to resolve a dispute on an issue of interpretation, breach or enforcement of this Agreement, the parties shall refer such dispute to be finally resolved by binding arbitration under the terms of this Section 13.1.2, except that all disputes with respect to the validity or infringement of Patents shall be subject to applicable federal court jurisdiction and not subject to the terms of this Section 13.1.2. Whenever a party shall decide to institute arbitration proceedings, it shall give written notice to that effect to the other party. Any such arbitration shall be conducted under the commercial arbitration rules of the [***] in effect, which are deemed to be incorporated by reference into this paragraph by a panel of three (3) arbitrators in [***]. Each party shall select one (1) arbitrator who is not employed by, or otherwise affiliated with, such party within [***] ([***)] days after the institution of arbitration proceedings, and the two (2) arbitrators so selected shall designate the third arbitrator. The parties shall use their commercially reasonable efforts to conclude the arbitration hearings within [***] ([***)] [***] following the confirmation of the third and presiding arbitrator.

13.2 Injunctive Relief. This Article 13 shall not be construed to prohibit either party from seeking preliminary or permanent injunctive relief, restraining order or degree of specific performance in any court of competent jurisdiction to the extent not prohibited by this Agreement. For avoidance of doubt, any such equitable remedies provided under this Article 13 shall be cumulative and not exclusive and are in addition to any other remedies, which either party may have under this Agreement or applicable law.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

ARTICLE 14
MISCELLANEOUS

14.1 Governing Laws. This Agreement and any dispute arising from the construction, performance or breach hereof shall be governed by and construed, and enforced in accordance with, the laws of the state of New York, USA, without reference to conflicts of laws principles.

14.2 Waiver. It is agreed that no waiver by either party hereto of any breach or default of any of the covenants or agreements herein set forth shall be deemed a waiver as to any subsequent and/or similar breach or default.

14.3 Assignment. This Agreement shall not be assignable by either party without the written consent of the other party hereto, except that either party may assign this Agreement, without such consent, to an entity that acquires all or substantially all of the business or assets of such party whether by merger, reorganization, acquisition, sale, or otherwise; provided, however, that within [***] ([***)] days of such an assignment, the assignee shall agree in writing to be bound by the terms and conditions of this Agreement. Any assignment in contravention of the foregoing shall be null and void. Subject to the foregoing, this Agreement shall bind and inure to the benefit of each party's successors and permitted assigns.

14.4 Independent Contractors. The relationship of the parties hereto is that of independent contractors. The parties hereto are not deemed to be agents, partners or joint venturers of the others for any purpose as a result of this Agreement or the transactions contemplated thereby.

14.5 Compliance with Laws. In exercising their rights under this Agreement, the parties shall fully comply in all material respects with the requirements of any and all applicable laws, regulations, rules and orders of any governmental body having jurisdiction over the exercise of rights under this license including, without limitation, those applicable to the discovery, development, manufacture, distribution, import and export and sale of Ascentage Products pursuant to this Agreement.

14.6 Notices. All notices, requests and other communications hereunder shall be in writing and shall be personally delivered or by registered or certified mail, return receipt requested, postage prepaid, in each case to the respective address specified below, or such other address as may be specified in writing to the other parties hereto and shall be deemed to have been given upon receipt:

If to Unity: Unity Biotechnology, Inc.
1700 Owens Street, Suite 535
San Francisco, CA 94158, USA
Attention: [***]
Email: [***]

If to Ascentage: Ascentage Pharma Group Corp. Ltd.
Room 201, QB3 Building, Medical City Avenue
Hi-Tech BioMed District, Taizhou City, Jiangsu Province
P.R. China, 225300
Attention: [***]
Email: [***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

14.7 Severability. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect to the fullest extent permitted by law without said provision, and the parties shall amend the Agreement to the extent feasible to lawfully include the substance of the excluded term to as fully as possible realize the intent of the parties and their commercial bargain.

14.8 Advice of Counsel. Unity and Ascentage have each consulted counsel of their choice regarding this Agreement, and each acknowledges and agrees that this Agreement shall not be deemed to have been drafted by one party or another and will be construed accordingly.

14.9 Performance Warranty. Each party hereby warrants and guarantees the performance of any and all rights and obligations of this Agreement by its Affiliates and licensees.

14.10 Force Majeure. Neither party shall lose any rights hereunder or be liable to the other party for damages or losses (except for payment obligations) on account of failure of performance by the defaulting party if the failure is occasioned by war, strike, fire, Act of God, earthquake, flood, lockout, embargo, governmental acts or orders or restrictions, failure of suppliers, or any other reason where failure to perform is beyond the reasonable control and not caused by the negligence, intentional conduct or misconduct of the non-performing party and such party has exerted all reasonable efforts to avoid or remedy such force majeure; provided, however, that in no event shall a party be required to settle any labor dispute or disturbance.

14.11 Complete Agreement. This Agreement with its schedules and exhibits, constitutes the entire agreement, both written and oral, between the parties with respect to the subject matter hereof, and all prior agreements respecting the subject matter hereof, either written or oral, express or implied, shall be abrogated, canceled, and are null and void and of no effect. No amendment or change hereof or addition hereto shall be effective or binding on either of the parties hereto unless reduced to writing and executed by the respective duly authorized representatives of Unity and Ascentage.

14.12 Headings. The captions to the several Sections and Articles hereof are not a part of this Agreement, but are included merely for convenience of reference and shall not affect its meaning or interpretation.

14.13 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to be one and the same agreement.

14.14 Bankruptcy. All rights and licenses granted under or pursuant to this Agreement by each party as a licensor are, and shall otherwise be deemed to be, for purposes of Section 365(n) of Title 11, U.S. Code (the "Bankruptcy Code"), licenses of rights to "intellectual property" as defined under section 101(35A) of the Bankruptcy Code. The parties agree that each licensee of such rights under this Agreement, shall retain and may fully exercise all rights and elections it would have in the case of a licensor bankruptcy under the Bankruptcy Code. Each party agrees during the term of this Agreement to create or maintain current copies, or if not amenable to copying, detailed descriptions or other appropriate embodiments, of all such intellectual property licensed to the other party.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their authorized representatives and delivered in duplicate originals as of the Signing Date.

ASCENTAGE PHARMA GROUP CORP. LTD.

UNITY BIOTECHNOLOGY, INC.

By: /s/ Dajun Yang

By: /s/ Nathaniel David

Name: Dajun Yang, MD, PhD

Name: Nathaniel David, PhD

Title: Chief Executive Officer

Title: Chief Executive Officer

EXHIBIT 1.25

RESEARCH AGREEMENT

This Research Services Agreement (the "Agreement") is made this 2nd day of February, 2016 (the "Signing Date") by and between **Ascentage Pharma Group Corp. Ltd.**, a [Hong Kong corporation] ("**Ascentage**"), with a business address at 11/F, AXA CENTRE, Gloucester Road, Wanchai, Hong Kong, and **Unity Biotechnology, Inc.**, a Delaware corporation ("**Unity**"), with a business address at 1700 Owens Street, Suite 535, San Francisco, California 95158.

WHEREAS, Unity and Ascentage entered into that certain license agreement (the "APG-1252 License Agreement") of even date herewith, pursuant to which Unity obtained a license to commercialize that certain BCL-2/BCL-xL inhibitor known as "APG-1252" for indications other than Oncology Indications (as defined in the Library Agreement).

WHEREAS, Unity and Ascentage have entered into that certain compound library and option agreement (the "Library Agreement") of even date herewith pursuant to which Ascentage has granted to Unity the right to screen Ascentage's existing collection of BCL-2/BCL-xL inhibitor compounds as well as any additional BCL-2/BCL-xL inhibitor compounds discovered by Ascentage during the term of the Library Agreement, in each case to identify compounds with potential utility in the treatment of age-related conditions other than cancer;

WHEREAS, Unity wishes to fund certain research services by Ascentage in furtherance of its screening and analysis with respect to Ascentage's BCL-2/BCL-xL inhibitor compounds, including without limitation the synthesis and derivatization of BCL-2/BCL-xL inhibitor compounds discovered through such screening and analysis; and

WHEREAS, Ascentage wishes to provide such research services in accordance with the terms and conditions of this Agreement and attached Project Addenda (as defined below).

WHEREAS, the parties intend for this Agreement to become effective as of the date on which the Second Amendment (as defined in Section 5.8(a) below) takes effect (the "Effective Date").

NOW, THEREFORE, in consideration of the premises and the mutual promises set forth in this Agreement, and other good and valuable consideration, the exchange, receipt and sufficiency of which are acknowledged, the parties agree as follows:

1.0 Projects and Project Addenda.

1.1 From time-to-time during the term of this Agreement Unity may request Ascentage to provide Unity with certain services, including without limitation services relating to the discovery, synthesis, characterization and derivatization of novel BCL-2/BCL-xL inhibitor compounds. Upon reaching agreement with respect to the requested services (including the

consideration to be paid to Ascentage in connection with such services), a project addendum describing in detail the activities to be conducted (such activities, collectively a "Project") and consideration to be paid to Ascentage shall be attached to this Agreement (each a "Project Addendum"), and such Project Addendum, together with this Agreement (but separate and apart from any other Project Addendum), shall collectively constitute the entire agreement for such Project. No Project Addendum, or any modification thereto, shall be attached to or made a part of this Agreement without first being executed by the parties hereto in a writing which specifically references this Agreement. To the extent any terms set forth in a Project Addendum conflict with the terms set forth in this Agreement, the terms of this Agreement shall control unless otherwise expressly agreed by the parties in such Project Addendum.

1.2 Within sixty (60) days of the Effective Date, the Unity and Ascentage shall agree upon the initial research services to be provided by Ascentage, which agreement shall be documented in a project addendum to be attached hereto as Appendix A ("Project Addendum No. 1").

2.0 Services.

2.1 General.

a) Diligence. Ascentage hereby agrees to (i) complete the services for Projects described in each Project Addendum (the "Services"), (ii) comply with the terms of the applicable Project Addendum, and (iii) provide its Services under each Project in the timeframe specified in the Project Addendum unless Ascentage later decides such Services cannot be completed within such timeframe within commercially reasonable efforts by providing notice to Unity to request extended timeframe. If an extended timeframe is needed, both parties shall discuss in good faith about the new timeframe and the additional costs needed. Ascentage is not obligated to continue Services if such agreement is not achieved.

b) Subcontractors. Ascentage shall not assign, delegate, or subcontract any of the Services without the prior written approval of Unity, which approval shall not be unreasonably withheld. Notwithstanding the foregoing, it is agreed that prior written approval of Unity shall not be required in the event that Ascentage wishes to delegate specific portions of the Services to one or more of the following Affiliates and third party vendors listed on Appendix B, provided that Ascentage shall remain responsible for directly performing of the majority of the Services. Ascentage shall remain liable under this Agreement for the performance of all its obligations under this Agreement and shall be responsible for and liable for compliance by all permitted subcontractors with the applicable provisions of this Agreement.

2.2 Project Management.

a) The "Project Coordinator" for Unity and the "Project Manager" for Ascentage will be specified in the Project Addendum for each Project. The Project Coordinator and the Project Manager will be responsible for day-to-day communications between the parties regarding the subject matter of this Agreement, including without limitation all Project Addenda and any Services and other activities conducted under any Project.

b) The Project Coordinator and the Project Manager will be responsible for (i) monitoring the schedules and progress of work pursuant to this Agreement; (ii) receiving and submitting requests for information and/or assistance; (iii) determining whether a request he or she receives for information and/or assistance from the other is necessary for the other party to complete a specific "Deliverable" (as defined in its respective Project Addendum); (iv) receiving and submitting Deliverables; (v) cooperating to implement acceptance testing; and (vi) supervising and recording the exchange of confidential information pursuant to this Agreement.

c) The Project Coordinator and the Project Manager will meet regularly to discuss the progress of the development effort and, if applicable, to exchange information and Deliverables.

d) Except in the case of an emergency, in the event the Project Manager will be unavailable to perform Services as set forth in the Project Addenda at any time during the Term for a period longer than [***] days (as defined below), Ascentage shall inform Unity and appoint a new Project Manager.

2.3 Exclusive Services. During the Term, Ascentage shall not, and shall ensure that the Project Manager and Ascentage Personnel shall not, conduct the Services in conjunction with any other projects being conducted at Ascentage that would (a) conflict with any of the provisions of this Agreement, or (b) preclude Ascentage from complying with the provisions hereof.

2.4 Records; Reports; Further Assurances.

a) Records. In connection with the Services performed hereunder, for each Project, Ascentage shall ensure that the Project Manager and Ascentage Personnel who perform such Services shall maintain laboratory notebooks, records and data ("Records") in accordance with good laboratory and research practices and will make such records available to Unity or Unity's authorized representative throughout the term of this Agreement during normal business hours upon reasonable notice at Unity's expense. Upon request by Unity and at Unity's expense, Ascentage agrees to provide copies of all such materials to Unity within a reasonable timeframe, in whatever condition maintained by Project Manager and Ascentage Personnel working on the Project.

b) Reports. Ascentage shall ensure that the Project Manager, and Ascentage Personnel working on a Project, submit to Unity [***] within [***] ([***]) days after the end of each [***] a written technical report summarizing the research, data, methods, results, conclusions and other information that the Project Manager considers material and relevant ("Results") obtained therefrom during the prior [***] ([***]) [***] period relating to such Project. Within [***] ([***]) days after the completion or termination of a Project, the Project Manager shall submit to Unity a final written technical report of major activities undertaken and major accomplishments achieved in connection with such Project (the "Final Report").

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

3.0 Deliverables; Acceptance/Rejection/Correction.

3.1 Deliverables. When Ascentage believes that a Deliverable has been appropriately completed under a Project, Ascentage will deliver it to Unity. Unity will accept or reject each Deliverable within [***] ([***)] days after delivery; failure to give notice of acceptance or rejection within that period will constitute acceptance. Unity may reject a Deliverable only if such Deliverable fails to meet the Specifications in material respect therefor stated in the applicable Project Addendum or as otherwise agreed to by the parties in writing.

3.2 Acceptance/Rejection/Correction. If Unity rejects a Deliverable because such Deliverable fails to meet the Specifications in material respect, Ascentage will [***] to promptly correct the failures within a timeframe that such failures can be corrected with Ascentage's [***]. When Ascentage believes that it has made the necessary corrections, Ascentage shall again deliver such Deliverable to Unity and the acceptance/rejection/correction provisions above shall be reapplied until such Deliverable is accepted. If Unity again rejects the deliverable, the parties shall discuss the reasons for such failures and if such failures can be corrected with [***].

4.0 Compensation and Payment.

4.1 To fund the Services to be provided hereunder, for so long as this Agreement remains in effect Unity shall pay to Ascentage Five Hundred Thousand U.S. Dollars (\$500,000) per year, such amount to be paid in advance in [***] increments of [***] U.S. Dollars (\$[***]) (such funds, the "Advanced Funds"). In consideration for Services rendered in connection with the performance of the Projects, Ascentage shall be entitled to deduct from the Advanced Funds the amounts due to Ascentage in accordance with the payment schedule (the "Payment Schedule") included in the respective Project Addendum attached to this Agreement. Unless otherwise agreed, compensation for Services will be on a time and materials basis, with time spent being accounted for based on the number of FTEs dedicated to performing the applicable Services and the costs of materials and third party services being passed through without mark-up as further described below. Each Project Addendum shall set forth (a) the number of FTEs agreed upon by the parties, (b) the FTE Rate, and (c) the agreed upon Out-of-Pocket Costs. For purposes of this Agreement, "FTE" shall mean a full time dedicated scientific employee of Ascentage, or if less than a full time dedicated scientific employee, a full time, equivalent scientific employee year based upon a total of [***] ([***)] working hours per year of scientific work, on or directly related to the Services carried out by an employee dedicated to work on a Project, in each case, having necessary qualifications to perform the Services. "FTE Rate" means, unless otherwise agreed between the Parties, a rate per FTE equal to [***], which rate may be prorated on a daily or hourly basis as necessary and as may be adjusted from time to time by mutual agreement of the Parties. The FTE Rate is [***] and will cover [***]. "Out-of-Pocket Costs" means travel (airfare, mobile allowance, meal expenses, hotel expenses etc.) and other incidental expenses incurred by such personnel in the performance of the Services, and amounts paid to third party vendors or contractors for services or materials provided by them directly in the performance of Services under the applicable Project. For clarity, Out-of-Pocket Costs do not include [***] all of which shall be included in the FTE Rate. Any Advanced Funds not utilized in any contract year may be carried forward to future contract years until

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expended. To the extent that the value of the Services requested by Unity in any contract year exceeds the amount of the Advanced Funds available in such contract year (i.e., Five Hundred Thousand U.S. Dollars (\$500,000) plus any unexpended Advanced Funds from prior years), the total payment for such contract year shall be increased by an amount equal to the difference between the cost of the requested Services and the amount of the available Advanced Funds (such amount, the "Additional Research Payment"). At Unity's election, any Additional Research Payments from previous contract years may be credited against the Five Hundred Thousand U.S. Dollars (\$500,000) funding obligation in subsequent years (e.g., in the event that Unity funds \$750,000 of Services in contract year 1, Unity would only be obligated to fund \$250,000 in Services in contract year 2).

4.2 In the event this Agreement or any Project Addendum is terminated pursuant to Article 5 of this Agreement, Ascentage shall be compensated for accrued fees and expenses as set forth in Section 5.5 below. Any funds held by Ascentage which are unearned at the date of termination shall be returned to Unity within [***] ([***)] days of termination of a Project, Project Addendum or this Agreement.

4.3 Payments to Ascentage shall be made to:

Ascentage Pharma Group Corp. Ltd.
[***]

4.4 Income taxes and withholding taxes (and any penalties and interest thereon) imposed on any payment made by Unity to Ascentage, as well as any sales tax, value-added or similar taxes for which a seller of goods and services is generally responsible, shall be the responsibility of Ascentage.

4.5 Ascentage shall ensure that its Project Manager and Ascentage Personnel maintain complete and accurate accounting records related to their participation in the Project(s) in accordance with applicable generally accepted accounting principles.

5.0 Term and Termination.

5.1 The term of this Agreement shall be four (4) years commencing upon the Effective Date (the "Term").

5.2 Commencing on the first anniversary of the Effective Date, this Agreement or any Project or Project Addendum may be terminated by Unity, without cause, upon ninety (90) days' notice to Ascentage.

5.3 This Agreement may be terminated by either party for material breach by the other party, provided that the terminating party has given the breaching party written notice of the breach and at least sixty (60) days to cure the breach prior to the effective date of termination.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

5.4 Ascentage shall have the right to terminate this Agreement upon sixty (60) days' written notice to Unity if in any contract year Unity fails to pay Ascentage at least Five Hundred Thousand U.S. Dollars (\$500,000) for Services contracted hereunder (taking into account any permitted credits for previous Additional Research Funding as described in Section 4.1 above).

5.5 Upon the effective date of termination, there shall be an accounting of costs and expenses related to the Agreement, Project, or Project Addendum, as appropriate, conducted by Ascentage and subject to verification by Unity. Within [***] ([***)] days after receipt of the results of such accounting and an invoice from Ascentage, Unity shall make a payment to Ascentage (and/or Ascentage may retain from Advanced Funds previously paid by Unity) for Services performed, including:

a) actual reasonable, documented costs, to the extent approved by Unity in a Project Addendum or in a prior written authorization, incurred by Ascentage in performing Services until the effective date of termination and for which Ascentage has not yet been paid by Unity; and

b) reasonable non-cancelable obligations incurred for the Project, to the extent approved by Unity in a Project Addendum or in a prior written authorization, by Ascentage prior to the effective date of termination to extent such obligations cannot reasonably be mitigated.

c) accrued fees for FTEs, to the extent devoted to performance of Project(s) prior to termination and pursuant to the applicable Project Addendum(a).

d) Except as provided in this Section 5.5, Unity shall have no obligation of payment to Ascentage for Services performed after the date of termination. In no event shall Unity have any obligation with respect to fees or expenses otherwise not approved by Unity in a Project Addendum or in a prior written authorization.

5.6 Upon request, expiration, or termination of this Agreement, Ascentage will deliver and/or return to Unity all materials containing Information of Unity, as well as data, records, information, reports and other property, furnished by Unity to Ascentage, together with all copies of any of the foregoing at Unity's expense.

5.7 The obligations of the parties contained in Sections 2.4(b), 4.2-4.4 and 5.4 through 5.7 and Articles 6.0, 7.0, 9.0, 10.0 and 14.0 through 25.0 hereof shall survive expiration or termination of any Project and/or this Agreement.

5.8 Condition Precedent.

a) This Agreement is entered into subject to the condition precedent that Ascentage and the Regents of the University of Michigan ("UM") agree upon and execute an amendment to that certain license agreement, entered into by Ascentage and the Regents of the University of Michigan ("UM") effective as of December 1, 2010, adjusting the royalties owing to

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UM in connection with the activities contemplated by the APG-1252 License Agreement and the Library Agreement (including the Compound License Agreements contemplated by the Library Agreement) (such amendment, the "Second Amendment"). All rights and obligations set forth in the Agreement shall only become effective upon the Effective Date.

b) Ascentage hereby agrees to use its commercially best efforts to complete and execute the Second Amendment as soon as reasonably practicable.

6.0 Confidentiality.

6.1 Unity holds a proprietary interest in the written and oral information which Unity discloses to Ascentage and identifies as confidential (hereinafter "Information"). As used herein, the "Information" of Unity shall also include the Deliverables. Ascentage agrees to protect the confidentiality of any and all Information disclosed to Ascentage by Unity and to use such Information solely for the performance of the Services described herein with the exception of the following which Ascentage can demonstrate by competent written proof:

a) Information which is or (through no improper action or inaction by Ascentage or its employees) becomes generally known to the public; or

b) Information which was rightfully disclosed to Ascentage by a third party without restriction and with the legal right to disclose such information (including, without limitation, without any breach of the third party's obligations to the disclosing party); or

c) Information which was in Ascentage's possession or was known to Ascentage prior to receipt from Unity, as evidenced by its contemporaneous written records; or

d) Information which was independently developed by employees of Ascentage without access to such Information, as evidenced by its contemporaneous written records.

6.2 Except as expressly allowed herein, Ascentage agrees (i) to hold the Information in strict confidence and to take all reasonable precautions to protect such Information, (ii) not to disclose, directly or indirectly, any Information or any information derived therefrom to any third person (except employees of Ascentage, subject to the conditions stated below), and (iii) not to use such Information, except as expressly permitted under this Agreement.

6.3 Ascentage may disclose any Information that is required to be disclosed by law, government regulation or court order. If disclosure is required, Ascentage will give Unity at least [***] ([***)] business days advance notice (unless prohibited by law or court order) so that Unity may seek a protective order or take other action reasonable in light of the circumstances.

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7.0 Intellectual Property.

7.1 Ownership. Subject to the rights and licenses granted to Unity under the Library Agreement and any Compound License Agreement(s) (as defined in the Library Agreement) that the parties may subsequently enter into, as between the parties, Ascentage shall own all right, title and interest (including patent rights, copyrights, trade secret rights, mask work rights, database rights and all other intellectual property rights worldwide) in any inventions, works of authorship, mask works, ideas or information made or invented by employees and any permitted subcontractors of Ascentage (collectively, "Ascentage Technology"). Right, title and interest to any inventions, works of authorship, mask works, ideas or information that are made jointly by employees and/or permitted subcontractors of Ascentage and Unity (collectively, "Joint Technology") shall be owned jointly. For purposes of this Section 7.1 whether any inventions, works of authorship, mask works, ideas or information that are made "jointly" shall be determined under the applicable laws of the United States of America, including in the case of patentable inventions, the principles of inventorship established in Title 35 of the United States Code ("US Patent Law"), and "joint ownership" means that Unity and Ascentage (subject to the rights granted by Ascentage to Unity under the APG-1252 License Agreement and the Library Agreement (including any future license agreement(s) contemplated in the Library Agreement), shall each be free to exploit such patent rights and authorize others to do so, with no obligation to obtain consent of the other or to account to the other party for profits or otherwise.

7.2 Inclusion of Program Technology in Ascentage Intellectual Property. All Ascentage Technology arising under the Subcontracted Project Plan(s), together with Ascentage's interest in all Joint Technology arising under the Subcontracted Project Plan(s), shall be automatically included within the Ascentage Intellectual Property for purposes of the Library Agreement and any future Compound License Agreement(s).

8.0 Representations, Warranties and Covenants.

8.1 Representations and Warranties. Each party represents and warrants to the other party that as of the Effective Date:

- a) it has full power and authority to enter into and perform this Agreement;
- b) neither its entering nor performing this Agreement will violate any right of or breach any obligation to any third party under any agreement or arrangement between such party and such third party;

8.2 Certain Covenants.

- a) the work under this Agreement will be performed in a professional and workman-like manner;
- b) Ascentage has and will obtain agreements with its employees requiring them to assign to Ascentage all right, title and interest in any intellectual property they develop in the course of their employment by Ascentage.

9.0 Indemnification. Ascentage agrees to indemnify and defend Unity and its directors, officers, employees, agents and their respective successors, heirs and assigns (the "Unity Indemnitees") against any losses, costs, claims, damages, liabilities or expense (including reasonable attorneys' and professional fees and other expenses of litigation) (collectively, "Liabilities") arising, directly or indirectly out of or in connection with Third Party claims, suits, actions, demands or judgments, to the extent resulting from (a) injuries to persons or damages which occur on Ascentage's premises or premises under the exclusive control of Ascentage, or (b) breach by Ascentage of its representations, warranties and covenants under Article 8 above, or (c) the negligence or intentional misconduct of Ascentage or any of its directors, officers, employees, agents or representatives, except in each case, to the extent such Liabilities result from the gross negligence or intentional misconduct of Unity.

10.0 Dispute Resolution.

10.1 Consultation. If an unresolved dispute arises out of or relates to this Agreement, or the breach thereof, either party may refer such dispute to the [***] of each party, who shall meet in person or by telephone within [***] ([***)] days after such referral to attempt in good faith to resolve such dispute. If such matter cannot be resolved by discussion of the respective [***] within such [***] ([***)] days period (as may be extended by mutual agreement), either party shall be entitled to seek resolution of such dispute pursuant to Section 10.2 below.

10.2 Arbitration. If the parties are unable to resolve a dispute on an issue of interpretation, breach or enforcement of this Agreement, the parties shall refer such dispute to be finally resolved by binding arbitration under the terms of this Section 10.2, except that all disputes with respect to the validity or infringement of Patents shall be subject to applicable federal court jurisdiction and not subject to the terms of this Section 10.2. Whenever a party shall decide to institute arbitration proceedings, it shall give written notice to that effect to the other party. Any such arbitration shall be conducted under the commercial arbitration rules of the [***], which are deemed to be incorporated by reference into this paragraph by a panel of three (3) arbitrators in [***]. Each party shall select one (1) arbitrator who is not employed by, or otherwise affiliated with, such party within [***] ([***)] days after the institution of arbitration proceedings, and the two (2) arbitrators so selected shall designate the third arbitrator. The parties shall use their commercially reasonable efforts to conclude the arbitration hearings within [***] ([***)] [***] following the confirmation of the third and presiding arbitrator.

10.3 Injunctive Relief. This Article 10 shall not be construed to prohibit either party from seeking preliminary or permanent injunctive relief, restraining order or degree of specific performance in any court of competent jurisdiction to the extent not prohibited by this Agreement. For avoidance of doubt, any such equitable remedies provided under this Article 10 shall be cumulative and not exclusive and are in addition to any other remedies, which either party may have under this Agreement or applicable law.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

11.0 Independent Contractor Relationship. The parties hereto are independent contractors and nothing contained in this Agreement shall be construed to place them in the relationship of partners, principal and agent, employer/employee or joint venturer. Both parties agree that neither shall have power or right to bind or obligate the other, nor shall either hold itself out as having such authority.

12.0 Publicity. Except as required by law, neither party shall use the name of the other party nor of any employee of the other party in connection with any publicity or media purposes without the prior written approval of the other party. It is understood and agreed that Unity may disclose Ascentage's performance of the Services hereunder with Ascentage's prior written approval, including, without limitation, by naming Ascentage, in government filings, regulatory disclosures and scientific publications.

13.0 Force Majeure. Neither party shall lose any rights hereunder or be liable to the other party for damages or losses (except for payment obligations) on account of failure of performance by the defaulting party if the failure is occasioned by war, strike, fire, Act of God, earthquake, flood, lockout, embargo, governmental acts or orders or restrictions, failure of suppliers, or any other reason where failure to perform is beyond the reasonable control and not caused by the negligence, intentional conduct or misconduct of the non-performing party and such party has exerted all reasonable efforts to avoid or remedy such force majeure; provided, however, that in no event shall a party be required to settle any labor dispute or disturbance.

14.0 Notices. Any notice required or permitted to be given hereunder by either party hereunder shall be in writing and shall be deemed given on the date received if delivered personally or by fax or [***] ([***)] days after the date postmarked if sent by registered or certified U.S. mail, return receipt requested, postage prepaid to the following address:

If to Unity: Unity Biotechnology, Inc.
1700 Owens Street, Suite 535
San Francisco, CA 94158, USA
Attention: [***]
Email: [***]

If to Ascentage: Ascentage Pharma Group Corp. Ltd.
Room 201, QB3 Building, Medical City Avenue
Hi-Tech BioMed District, Taizhou City, Jiangsu Province
P.R. China, 225300
Attention: [***]
Email: [***]

15.0 Governing Law. This Agreement and any dispute arising from the construction, performance or breach hereof shall be governed by and construed, and enforced in accordance with, the laws of the state of New York, USA, without reference to conflicts of laws principles.

16.0 Severability. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect to the fullest extent permitted by law without said provision, and the parties shall amend the Agreement to the extent feasible to lawfully include the substance of the excluded term to as fully as possible realize the intent of the parties and their commercial bargain.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

17.0 Waiver. Waiver or forbearance by either party or the failure by either party to claim a breach of any provision of this Agreement or exercise any right or remedy provided by this Agreement or applicable law, shall not be deemed to constitute a waiver with respect to any subsequent breach of any provision hereof.

18.0 Changes and Modification. No changes or modifications of this Agreement or any Project Addendum shall be deemed effective unless in writing and executed by the parties hereto.

19.0 Assignment. Unity may assign this Agreement to an Affiliate (as defined in the Library Agreement). Otherwise, this Agreement may not be assigned by Ascentage or Unity without the prior written consent of the other, such consent not to be unreasonably withheld, except that either party may assign this Agreement, without such consent, to an entity that acquires all or substantially all of the business or assets of such party whether by merger, reorganization, acquisition, sale, or otherwise; provided, however, that within [***] ([***)] days of such an assignment, the assignee shall agree in writing to be bound by the terms and conditions of this Agreement. Any assignment in contravention of the foregoing shall be null and void. Subject to the foregoing, this Agreement shall bind and inure to the benefit of each party's successors and permitted assigns.

20.0 Advice of Counsel. Unity and Ascentage have each consulted counsel of their choice regarding this Agreement, and each acknowledges and agrees that this Agreement shall not be deemed to have been drafted by one party or another and will be construed accordingly.

21.0 Complete Agreement. This Agreement with its schedules and appendices, constitutes the entire agreement, both written and oral, between the parties with respect to the subject matter hereof, and all prior agreements respecting the subject matter hereof, either written or oral, express or implied, shall be abrogated, canceled, and are null and void and of no effect. No amendment or change hereof or addition hereto shall be effective or binding on either of the parties hereto unless reduced to writing and executed by the respective duly authorized representatives of Unity and Ascentage.

22.0 Compliance with Laws. In exercising their rights under this Agreement, the parties shall comply in all material respects with the requirements of any and all applicable laws, regulations, rules and orders of any governmental body of applicable jurisdiction.

23.0 Headings. The captions to the several Sections and Articles hereof are not a part of this Agreement, but are included merely for convenience of reference and shall not affect its meaning or interpretation.

24.0 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to be one and the same agreement.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

25.0 Bankruptcy. All rights and licenses granted under or pursuant to this Agreement by each party as a licensor are, and shall otherwise be deemed to be, for purposes of Section 365(n) of Title 11, U.S. Code (the "Bankruptcy Code"), licenses of rights to "intellectual property" as defined under section 101(35A) of the Bankruptcy Code. The parties agree that each licensee of such rights under this Agreement, shall retain and may fully exercise all rights and elections it would have in the case of a licensor bankruptcy under the Bankruptcy Code. Each party agrees during the term of this Agreement to create or maintain current copies, or if not amenable to copying, detailed descriptions or other appropriate embodiments, of all such intellectual property licensed to the other party.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their authorized representatives and delivered in duplicate originals as of the Signing Date.

ASCENTAGE PHARMA GROUP CORP. LTD.

UNITY BIOTECHNOLOGY, INC.

By: /s/ Dajun Yang

By: /s/ Nathaniel David

Name: Dajun Yang, MD, PhD

Name: Nathaniel David, PhD

Title: Chief Executive Officer

Title: Chief Executive Officer

APPENDIX A
UNITY AND ASCENTAGE
MASTER SERVICES AGREEMENT
PROJECT ADDENDUM
DESCRIPTION OF SERVICES; PAYMENT SCHEDULE

APPENDIX B
PERMITTED AFFILIATES AND THIRD PARTY VENDORS

[***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

SENOLYTIC TEST

Part A: Protocol for Senolytic Test

- [***]

Part B: [*]**

[***]

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EXHIBIT 2.2

COMPOUND FORMULATION

[***]

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ASCENTAGE ACTIVE COMPOUNDS AS OF THE EFFECTIVE DATE

***]

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EXHIBIT 2.6

BIOCHEMICAL ASSAY

[***]

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FORM OF COMPOUND LICENSE AGREEMENT

This Compound License Agreement (the "Agreement") effective as of the _____ day of _____, 20____, [Insert date of designation of applicable Development Candidate under Section 3.3.2(a) of the Compound Library and Option Agreement] (the "Effective Date") is made by and between **Ascentage Pharma Group Corp. Ltd.**, a Hong Kong corporation ("Ascentage"), with a business address at 11/F, AXA CENTRE, Gloucester Road, Wanchai, Hong Kong, and **Unity Biotechnology, Inc.**, a Delaware corporation ("Unity"), with a business address at 1700 Owens Street, Suite 535, San Francisco, California 95158. Each of Ascentage and Unity shall be a "Party," and both the "Parties."

BACKGROUND

A. Unity and Ascentage entered into (i) that certain Compound Library and Option Agreement dated February 2, 2016 (the "Library Agreement"), pursuant to which Unity has certain rights to acquire a license under the Licensed Intellectual Property to commercialize specified compounds, and (ii) that certain license agreement dated February 2, 2016 (the "APG-1252 License Agreement"), pursuant to which Unity obtained a license to commercialize that certain BCL-2/BCL-xL inhibitor known as "APG-1252" for treatment of age-related conditions; and

B. Unity has exercised its rights under the Library Agreement to acquire from Ascentage such a license under the Licensed Intellectual Property, all as set forth below on the terms and conditions herein.

NOW, THEREFORE, for and in consideration of the covenants, conditions, and undertakings hereinafter set forth, it is agreed by and between the Parties as follows:

ARTICLE 1
DEFINITIONS

1.1 The following terms have the meanings set forth in the Library Agreement:

- Active Compound
- Affiliate
- Ascentage Intellectual Property
- Back-up Compounds
- Compounds
- Development Candidates
- Greater China
- IND
- Oncology Indications
- Patents
- Stock Agreement
- Technology
- Third Party

1.2 “Fair Market Value” means with respect to a share of Unity common stock, the average price that Unity common stock is publicly trading at for [***] ([***)] days prior to the date in question, or, if the security is not publicly traded, the value of such stock as determined in good faith by Unity’s board of directors in reliance upon Unity’s most recent IRC Section 409A independent valuation of Unity’s common stock that it used for the purposes of granting stock options to its employees.

1.3 “Control” and its correlative terms, “Controlled” or “Controls” shall mean, with respect to any Patent or item of Technology, that a Party or one of its Affiliates owns or possesses rights to such Patent or item of Technology sufficient to grant the access, license or sublicense contemplated in this Agreement without violating the terms of any agreement or other arrangement with any Third Party.

1.4 “Cover” and its correlative terms, “Covers”, “Covered” or “Covering” means (a) with respect to an issued patent, that, in the absence of a license, the use, offer for sale, sale, importation or manufacture of the product in question would infringe one or more claims of such patent or (b) with respect to a pending patent application, that, in the absence of a license, the use, offer for sale, sale, importation or manufacture of the product in question would infringe one or more claims of such patent application, should such claims issue as published.

1.5 “Enabling IP” means Patents and/or Technology of a Third Party that Covers or relates to a Licensed Product and is necessary or useful for the research, development, manufacture, use, sale or import of Licensed Products, including Patents directed to the composition and manufacture of Licensed Compounds, but excluding Patents related to formulation and therapeutic methods.

1.6 “EMA” means the European Medicines Agency and any successor agency.

1.7 “Existing Agreements” means (a) that certain Exclusive License Agreement between Unity and the Mayo Foundation for Medical Education and Research originally entered into by the parties effective June 28th, 2013; (b) that certain Exclusive License Agreement between Unity and the Buck Institute for Research on Aging originally entered into by the parties effective February 3rd, 2014; and (c) that certain Exclusive License Agreement between Unity and the Board of Trustees of the University of Arkansas originally entered into by the parties effective April 28th, 2015.

1.8 “FDA” means the United States Food and Drug Administration and any successor agency.

1.9 “Field” means the prophylaxis and treatment of, and palliation of symptoms associated with, indications other than Oncology Indications.

1.10 “Generic Product” means a product which (a) contains as its active pharmaceutical ingredient a compound that is (or is substantially the same as) the Licensed Compound, and (b) has been placed on the market pursuant to a validly granted marketing authorization.

1.11 “Licensed Compound” means the Development Candidate listed in Schedule 1.11 hereto.

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1.12 "Licensed Product-Specific Patents" means those Licensed Patents that [***] the Licensed Compound and/or Licensed Product and [***].

1.13 "Licensed Intellectual Property" means the Licensed Patents and Licensed Technology.

1.14 "Licensed Patents" means Patents owned or Controlled by Ascentage or its Affiliates during the Term, in each case to the extent Covering the Licensed Compound or a Licensed Product.

1.15 "Licensed Product" means a pharmaceutical product containing the Licensed Compound (either alone or with other active pharmaceutical ingredients), in all forms, presentations, formulation and dosage forms.

1.16 "Licensed Technology" means Technology owned or Controlled by Ascentage or its Affiliates during the Term, in each case to the extent such Technology is necessary or reasonably useful for the development, manufacture or commercialization of the Licensed Compound or a Licensed Product.

1.17 "Marketing Approval Application" or "MAA" means a New Drug Application (or its equivalent), as defined in the U.S. Food, Drug and Cosmetic Act and the regulations promulgated thereunder, or any corresponding or similar application, registration or certification in any country.

(a) "Net Sales" means the gross amount invoiced to non-Affiliate Third Parties on sales of Licensed Products by Unity or its Affiliates or Third Party Sublicensees, less the actual amounts incurred, allowed, or paid for the following items (if not previously deducted from the amount invoiced and provided that such deductions are calculated in accordance with generally accepted accounting principles of the United States of America ("GAAP") on a consistent basis): (a) trade, cash, and quantity discounts; (b) amounts for claims, allowances or credits for returns, rejections or recalls; (c) freight, shipping and insurance charges allocable to such Licensed Products; (d) sales taxes, duties and other governmental charges (including value added tax) on particular sales, but excluding what is commonly known as income taxes; (e) government mandated rebates; (f) contracted rebates; and (g) a provision for uncollectible accounts; in each case as determined from books and records of the selling party maintained in accordance with GAAP, as consistently applied by such selling party. In the event that Unity grants a sublicense to a Third Party Sublicensee hereunder, and receives payments based upon such Third Party Sublicensee's sales of Licensed Product, Unity may, with Ascentage's consent, which consent shall not be unreasonably withheld or delayed, substitute the definition of "Net Sales," used by such Third Party Sublicensee to calculate its payments to Unity in place of the foregoing definition of "Net Sales" for purposes of calculating royalties payable to Ascentage on such Third Party Sublicensee's sales.

1.18 "Phase I Clinical Trial" means a human clinical trial, the principal purpose of which is preliminary determination of safety of a drug in healthy individuals or patients, that would satisfy the requirements of 21 C.F.R. §312.21(a).

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1.19 “Phase II Clinical Trial” means a clinical trial of a drug conducted on a limited number of patients for the purpose of preliminary evaluation of clinical efficacy and safety of such drug, and/or to obtain an indication of the dosage regimen required, in each case that would satisfy the requirements of 21 C.F.R. 312.21(b).

1.20 “Phase III Clinical Trial” means a pivotal human clinical trial intended to gather additional information regarding the safety and efficacy of the drug in patients with the disease being studied, which clinical study is designed to be of a size and statistical power sufficient to support the filing of an MAA and that would satisfy the requirements of 21 C.F.R. 312.21(c).

1.21 “Territory” means the entire world excluding Greater China.

1.22 “Third Party Sublicensee” means any Third Party to which Unity licenses the right to commercialize any Licensed Product. For the avoidance of doubt, “Third Party Sublicensee” shall not include Third Party distributors, service providers, vendors and suppliers that do not have the right to market or promote Licensed Product.

1.23 “UM License Agreement” means that certain license agreement entered into by Ascentage and the Regents of the University of Michigan (“UM”) effective as of December 1, 2010, as amended by all amendments to such license agreement existing as of the Effective Date.

1.24 “Valid Claim” means a claim contained in an issued Patent within the Licensed Patents in any country that (a) has not expired; (b) has not been disclaimed; (c) has not been cancelled or superseded, or if cancelled or superseded, has been reinstated; and (d) has not been revoked, held invalid, or otherwise declared unenforceable or not allowable by a tribunal or patent authority of competent jurisdiction over such claim in such country from which no further appeal has or may be taken.

ARTICLE 2 LICENSES

2.1 Licenses.

2.1.1 Development Licenses. Subject to the terms and conditions of this Agreement, Ascentage hereby grants to Unity:

(a) a royalty-free, exclusive license in the Field and the Territory, with the right to grant sublicenses as provided in Section 2.2, under the Licensed Intellectual Property to (i) research, develop and seek and obtain marketing approval for the Licensed Compound and Licensed Products and (ii) package the Clinical Materials (as defined in Schedule 4.1) supplied by or on behalf of Ascentage, in each case in the Field and Territory, and to have any of the foregoing performed on its behalf by a Third Party; and

(b) a royalty-free, non-exclusive license in the Field and the Territory, with the right to grant sublicenses as provided in Section 2.2, under the Ascentage Intellectual Property to manufacture or have manufactured Licensed Compound and Licensed Product for non-clinical research and development purposes.

2.1.2 Commercialization Licenses. Subject to the terms and conditions of this Agreement, Ascentage hereby grants to Unity a royalty-bearing, exclusive license in the Field and the Territory, with the right to grant sublicenses as provided in Section 2.2, under the Licensed Intellectual Property: (a) to use the Licensed Compound supplied by or on behalf of Ascentage to make or have made the Licensed Products; (b) to make or have made Licensed Products and all components thereof (including without limitation, Licensed Compound) and (c) to use, offer for sale, sell, import, export, market, promote and distribute Licensed Compounds and Licensed Products; in each case, solely for use in the Field and Territory, and to have any of the foregoing performed on its behalf by a Third Party. For clarity, it is understood and agreed that Unity's right under subsection (b) above to make or have made Licensed Products and all components thereof may only be exercised as permitted under Schedule 4.1.

2.2 Sublicenses. Unity may grant and authorize sublicenses within the scope of the license granted to Unity pursuant to this Agreement, provided that for clarity, Unity shall remain responsible for all milestone and other payments due to Ascentage under this Agreement based on the activities of Unity's sublicensees.

2.3 Third Party Intellectual Property. If after the Effective Date, Ascentage acquires or licenses from a Third Party subject matter that would fall within the Licensed Intellectual Property ("Third Party Intellectual Property") that is subject to any payment obligation to the Third Party, then Ascentage shall so notify Unity and Unity shall inform Ascentage if it wishes such subject matter to be included within the Licensed Intellectual Property. If Unity notifies Ascentage that it does wish such subject matter to be so included, the rights granted to Unity hereunder with respect to such Third Party Intellectual Property shall be subject to Unity promptly reimbursing Ascentage for [***] and Unity shall reimburse Ascentage for [***]. Upon request by Unity, Ascentage shall disclose to Unity a written description of such payment obligations. Notwithstanding the foregoing, Unity shall have the right to treat amounts paid to Ascentage as reimbursements for payments for Enabling IP for purposes of Section 5.5.

2.4 No Implied Licenses. Nothing herein shall be construed as granting Unity, by implication, estoppel or otherwise, any license or other right (a) to any intellectual property of Ascentage other than the Licensed Intellectual Property (b) to commercialize Licensed Products outside of the Field and Territory (c) not relating to the Licensed Compound and Licensed Products or (d) any right or license other than those expressly granted herein.

2.5 Exclusivity with Respect to Licensed Compounds. Ascentage hereby covenants that except as expressly permitted under any future agreement that the Parties may enter into pursuant to Article 8 below pertaining to the China JVCO, Ascentage shall not: (a) research, develop, use or commercialize, and shall not authorize any Affiliate or other Third Party to research, develop, use or commercialize, the Licensed Compound or any Licensed Product, and (b) manufacture, or authorize any Third Party to manufacture, the Licensed Compound or any Licensed Product, other than for supply to Unity in accordance with the terms of Schedule 4.1.

2.6 [***]. The Parties agree that within [***] of the Effective Date of this Agreement they will put in place a procedure pursuant to which [***] shall [***] that [***] to [***].

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**ARTICLE 3
DUE DILIGENCE**

3.1 General. Unity shall use commercially reasonable efforts to develop and obtain marketing approval for at least one Licensed Product hereunder, and thereafter shall use commercially reasonable efforts to launch and commercialize each such Licensed Product and to fulfil the market demand therefor.

3.2 Diligence Milestones. Without limiting the it's general diligence obligations under Section 3.1 above, Unity agrees that it shall achieve the following diligence milestones with respect to the Licensed Compound by the deadlines specified below:

<u>Milestone</u>	<u>Time Period</u>
1. [***]	Within [***] ([***]) [***] of the Effective Date
2. [***]	Within [***] ([***]) [***] of the Effective Date
3. [***]	Within [***] ([***]) [***] of the Effective Date
4. [***]	Within [***] ([***]) [***] of the Effective Date

If Unity is unable to meet [***], as applicable, by the specified deadline, Unity shall none-the-less be deemed to be in compliance with its diligence obligations hereunder so long as it [***].

3.3 Substitution of Licensed Compound.

3.3.1 General. If Unity elects to discontinue development of a Licensed Compound for [***] reasons, then Unity shall have a right to replace such abandoned Licensed Compound with the Back-up Compound listed in Schedule 3.3. Following such replacement pursuant to this Section 3.3, the Back-up Compound shall be considered a "Substitute Licensed Compound".

3.3.2 Designation. In the event that Unity wishes to exercise its right under this Article 3 to select a Substitute Licensed Compound, Unity will provide Ascantage with written notice specifying the Licensed Compound for which development is being discontinued and the Back-up Compound that it wishes to replace it with ("Substitution Notice").

3.3.3 Following designation of a Substitute Licensed Compound, the Parties shall promptly update Schedule 1.11 to reflect the substitution of the Substitute Licensed Compound for the current Licensed Compound. Upon any such substitution, all references to the "Licensed Compound" in this Agreement shall thereafter be deemed to refer to such Substitute Licensed Compound, and the compound for which such Substitute Licensed Compound was substituted shall cease to be considered a Licensed Compound.

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**ARTICLE 4
MANUFACTURE AND SUPPLY**

4.1 Subject to the terms and conditions of this Agreement, Ascentage (itself or through one or more Third Party contract manufacturers) shall manufacture and supply Unity, its Affiliates and their Third Party Sublicensees with (a) Clinical Materials, and (b) Licensed Compound, in each case in accordance with Schedule 4.1 (“Supply Terms”). Subject to the terms and conditions of this Agreement, Unity shall purchase Clinical Materials and Licensed Compound from Ascentage in accordance with Schedule 4.1. Upon Unity’s request, Ascentage and Unity shall enter into a separate supply agreement substantially reflecting the Supply Terms set forth in Schedule 4.1 as well as other customary terms and conditions (the “Supply Agreement”). Unless and until such time as the Parties have executed the Supply Agreement, the terms of Schedule 4.1 shall govern any supply of Clinical Material and Licensed Compound requested by Unity.

**ARTICLE 5
PAYMENTS**

5.1 Equity Grants.

5.1.1 [***]. Upon the [***], Unity shall issue to Ascentage Three Hundred Ninety Three Thousand Three Hundred Thirty Five (393,335) shares of Unity common stock; such shares to be issued to Ascentage pursuant to the Stock Agreement within [***] ([***)] days of date that [***] occurs. For clarity, [***].

5.1.2 [***]. Upon the [***], Unity shall issue to Ascentage the following number of shares of Unity common stock based on how long after the Effective Date such [***]; such shares to be issued to Ascentage pursuant to the Stock Agreement within [***] ([***)] days of date that such [***] occurs:

(a) [***] ([***)] shares of Unity common stock if such [***] occurs within [***] ([***)] [***] of the Effective Date.

(b) [***] ([***)] shares of Unity common stock if such [***] occurs more than [***] ([***)] [***] after the Effective Date but less than [***] ([***)] [***] after the Effective Date.

(c) [***] ([***)] shares of Unity common stock if such [***] occurs more than [***] ([***)] [***] after the Effective Date.

5.1.3 Equity Cap. Notwithstanding anything in the contrary in this Agreement, the Library Agreement, the APG-1252 License Agreement or any other Compound License Agreement, the maximum cumulative aggregate number of shares of Unity common stock that Ascentage is eligible to receive under Sections 6.1 and 6.2 of the Library Agreement, Section 5.1 of the APG-1252 License Agreement, this Section 5.1 or Section 5.1 of any other Compound License Agreement is:

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(a) [***] ([***) shares of Unity common stock if only one Licensed Product is developed; and

(b) Three Million Nine Hundred Thirty Three Thousand Three Hundred and Fifty (3,933,350) shares of Unity common stock if two or more Licensed Products is developed.

5.2 Development/Sales Milestones. In partial consideration of the rights and licenses granted herein to Unity, Unity shall pay Ascentage the following milestone payments.

[NTD: PRIOR TO EXECUTION PARTIES TO SELECT ONE OF THE THREE OPTIONS IN THIS SECTION 5.2 (DEVELOPMENT/SALES MILESTONES) AS WELL AS ONE OF THE THREE OPTIONS IN SECTION 5.3 (ROYALTIES) BASED ON WHETHER THE LICENSED COMPOUND IS (1) A [*], (2) A [***] OR (3) A [***]]**

5.2.1 Option 1: [***]. Within [***] ([***) days after the first achievement by Unity (or any of its Affiliates or Third Party Sublicensees) of each of the following milestones with respect to a Licensed Product containing a [***], Unity shall pay Ascentage the corresponding milestone payment set forth below, in accordance with the payment provisions of Article 6 below:

<u>Milestone Event</u>	<u>Milestone Payment</u>
1. [***]:	\$ [***]
2. [***]:	\$ [***]
3. [***]:	\$ [***]
4. [***]	\$ [***]
5. [***]	\$ [***]
Total per Licensed Product	\$ [***]

5.2.2 Option 2: [***]. Within [***] ([***) days after the first achievement by Unity (or any of its Affiliates or Third Party Sublicensees) of each of the following milestones with respect to a [***], Unity shall pay Ascentage the corresponding milestone payment set forth below, in accordance with the payment provisions of Article 6 below:

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<u>Milestone Event</u>	<u>Milestone Payment</u>
1. [***]:	\$ [***]
2. [***]:	\$ [***]
3. [***]:	\$ [***]
4. [***]	\$ [***]
5. [***]	\$ [***]
Total per Licensed Product	\$ [***]

5.2.3 Option 3: [***].

(a) Within [***] ([***) days after the first achievement by Unity (or any of its Affiliates or Third Party Sublicensees) of each of the following milestones with respect to the [***] to achieve such milestone, Unity shall pay Asccentage the corresponding milestone payment set forth below, in accordance with the payment provisions of Article 6 below:

<u>Milestone Event</u>	<u>Milestone Payment</u>
1. [***]:	\$ [***]
2. [***]:	\$ [***]
3. [***]:	\$ [***]
4. [***]	\$ [***]
5. [***]	\$ [***]
Total per Licensed Product	\$ [***]

(b) Within [***] ([***) days after the first achievement by Unity (or any of its Affiliates or Third Party Sublicensees) of each of the following milestones with respect to the [***] to achieve such milestone, Unity shall pay Asccentage the corresponding milestone payment set forth below, in accordance with the payment provisions of Article 5 below:

<u>Milestone Event</u>	<u>Milestone Payment</u>
1. [***]:	\$ [***]
2. [***]:	\$ [***]
3. [***]:	\$ [***]
Total per Licensed Product	\$ [***]

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5.2.4 Certain Additional Terms.

(a) For clarity, all forms, presentations, formulation and dosage forms of a Licensed Product shall be considered one and the same Licensed Product for purposes of this Section 5.2.

(b) If Unity begins development of one Licensed Product and a milestone payment is made under this Section 5.2, and then Unity terminates development of such Licensed Product and begins development of a second Licensed Product, the milestone which was already paid under this Section 5.2 for the abandoned Licensed Product will not be repeated, but the remaining milestone payments hereunder will be due as the second Licensed Product advances; *[NTD: IN THE EVENT OPTION 3 IS SELECTED, THE FOLLOWING ADDITIONAL SENTENCE SHALL BE ADDED TO SECTION 5.2.2(b): For clarity, it is acknowledged and agreed that should the first Licensed Product be abandoned prior to achieving all of the milestones set forth Section 5.2.1(a), such remaining unpaid milestones shall become due and payable when first achieved by the next Licensed Product.]*

(c) In its sole discretion, Unity may elect in lieu of the payment of the milestone payments owing to Ascentage under this Section 5.2, to grant to Ascentage that number of shares of Unity common stock of equivalent value (based on the Fair Market Value of such Unity common stock at the time of such grant).

5.3 Royalties. In partial consideration of the licenses granted herein to Unity, Unity shall pay to Ascentage a running royalty equal to the percentage set forth below on the Net Sales of Licensed Product based on the type of Compound contained in such Licensed Product, subject to any adjustments set forth in Sections 5.5 and 5.6, and in accordance with the payment provisions of Article 6 below.

5.3.1 Option 1: [***].

<u>Annual Net Sales of Licensed Product</u>	<u>Applicable Royalty Rate</u>
<i>Portion of worldwide annual Net Sales of the Licensed Product less than or equal to [***] Dollars (US\$[***])</i>	<i>[***]%</i>
<i>Portion of worldwide annual Net Sales of the Licensed Product over [***] Dollars (US\$[***])</i>	<i>[***]%</i>

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5.3.2 Option 2: [***].

<u>Annual Net Sales of Licensed Product</u>	<u>Applicable Royalty Rate</u>
Portion of worldwide annual Net Sales of the Licensed Product less than or equal to [***] Dollars (US\$[***])	[***]%
Portion of worldwide annual Net Sales of the Licensed Product over [***] Dollars (US\$[***])	[***]%

5.3.3 Option 3: [***].

(a) With respect to Net Sales of the [***] to receive marketing approval, Unity shall pay to Ascentage the royalties set forth below:

<u>Annual Net Sales of Licensed Product</u>	<u>Applicable Royalty Rate</u>
Portion of worldwide annual Net Sales of the Licensed Product less than or equal to [***] Dollars (US\$[***])	[***]%
Portion of worldwide annual Net Sales of the Licensed Product over [***] Dollars (US\$[***])	[***]%

(b) With respect to Net Sales of the [***] to receive marketing approval, Unity shall pay to Ascentage the royalties set forth below:

<u>Annual Net Sales of Licensed Product</u>	<u>Applicable Royalty Rate</u>
Portion of worldwide annual Net Sales of the Licensed Product less than or equal to [***] Dollars (US\$[***])	[***]%
Portion of worldwide annual Net Sales of the Licensed Product over [***] Dollars (US\$[***])	[***]%

5.4 Royalty Term. Unity's obligation to pay royalties on Net Sales of Licensed Product under this Agreement shall continue on a country-by-country and Licensed Product-by-Licensed Product basis until the later of (a) abandonment or expiration of the last Valid Claim that claims the [***] contained in such Licensed Product in such country, (b) the date of expiry of any applicable regulatory, pediatric, orphan drug or data exclusivity obtained for such Licensed Product in such country, or (c) ten (10) years after the first commercial sale of the Licensed Product by or under the authority of Unity in any country in the Territory.

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5.5 Royalty Stacking. Unity shall be entitled to deduct from the amounts owing to Ascentage under Sections 5.2 and 5.3 above [***] percent ([***]%) of any royalties or other payments made to Third Parties for Enabling IP, provided that (a) the total aggregate amount payable to Ascentage under Sections 5.2 and 5.3 in any [***] may not be reduced to less than [***] percent ([***]%) of the amounts that would otherwise be due Ascentage in such [***], and

(a) Unity shall not be entitled to deduct any royalties or other payments made under the Existing Agreements. If, in any [***], Unity is not able to fully recover its [***] percent ([***]%) portion of the payments due to a Third Party, it shall be entitled to carry forward such right of off-set to future [***] with respect to the excess amount

5.6 Generic Products. If at any time during the term of this Agreement a Generic Product enters the market in any country and has for a period of at least [***] ([***]) consecutive [***] a market share in such country of at least [***] percent ([***]%) of the then combined unit volume of the corresponding Licensed Product (i.e., the Licensed Product containing the same active pharmaceutical ingredient(s) as are present in the Generic Product) and such Generic Product, then Unity's obligation to pay royalties to Ascentage on Net Sales of such Licensed Product in such country shall be reduced to [***] percent ([***]%) of the amounts that would otherwise be due Ascentage under Section 5.3 in such calendar quarter.

5.7 Maximum Reduction to Royalties. Notwithstanding anything to the contrary in this Article 5, in no event shall the royalties owing to Ascentage with respect to Net Sales of a Licensed Product in any country be reduced by cumulative operation of Sections 5.5 and 5.6 to less than [***] percent ([***]%) of the amounts that would otherwise be due Ascentage under Section 5.3 in such calendar quarter.

5.8 Combination Products. In the event that a Licensed Product is sold for a single price in combination with another therapeutically active pharmaceutical ingredient, or other product or service, for which no royalty would be due hereunder if sold separately, Net Sales from such combination sales, for purposes of calculating the applicable royalty rate and the applicable royalty due under Section 5.3 shall be calculated by multiplying the Net Sales of the combination product by the fraction $A/(A + B)$, where A is the average gross selling price during the previous [***] of the Licensed Product sold separately and B is the gross selling price during the previous [***] of the therapeutically active ingredient, product or service. In the event that separate sales of the Licensed Product or the additional therapeutically active ingredient, product or service were not made during the previous [***], then the Net Sales shall be reasonably allocated between such Licensed Product and such other active ingredient, product or service as agreed upon by the Parties, or failing agreement, determined in accordance with Section 13.1 (Dispute Resolution) below.

5.9 Unity's Covenant. Unity hereby agrees that any shares of common stock issued to Ascentage will not be diluted unless diluted in good faith by Unity on a proportionate basis to the other shares of common stock of Unity outstanding at the time of any such dilution, and subject to the anti-dilution protections as set forth in Unity's certificate of incorporation, as may be amended from time to time in good faith; provided further, that Unity shall not take actions that specifically treat Ascentage differently from other holders of common stock, or issue any capital stock in a manner which is intended to circumvent this covenant. The shares of common stock

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issued to Ascentage shall be duly adjusted for any bonus issue, share split, consolidation, subdivision, reclassification, recapitalization or similar arrangement of Unity, in each case in accordance with, and as expressly contemplated by, Unity's certificate of incorporation, as may be amended from time to time in good faith.

ARTICLE 6 ACCOUNTING; RECORDS; METHOD OF PAYMENT

6.1 Royalty Reports; Payments, Invoices. After the first sale of a Licensed Product on which royalties are payable by Unity hereunder, Unity shall make quarterly written reports to Ascentage within [***] ([***)] days after the end of each calendar quarter, stating in each such report the number, description, and aggregate Net Sales of Licensed Product sold during the calendar quarter upon which a royalty is payable under Article 5 above. Concurrently with the making of such reports, Unity shall pay to Ascentage all amounts payable pursuant to Article 5 above, in accordance with the payment provisions of Section 6.3.

6.2 Records; Inspection. During the term of this Agreement and for a period of [***] ([***)] years thereafter, Unity and its Affiliates shall keep complete, true and accurate books of account and records for the purpose of determining the amounts payable to Ascentage under this Agreement. Ascentage shall have the right to cause an independent, certified public accountant reasonably acceptable to Unity to audit such records to confirm gross sales, Net Sales and royalty payments for a period covering not more than the preceding [***] ([***)] years. Unity agrees to either: (a) require each of its Third Party Sublicensees to maintain similar books and records and to open such records for inspection by an independent, certified public accountant reasonably satisfactory to such Third Party Sublicensee, on behalf of, and as required by, Ascentage for the purpose of verifying payments hereunder, or (b) obtain such audits rights from the Third Party Sublicensee for itself and exercise such audit rights on behalf of Ascentage upon Ascentage's request and disclose the results thereof to Ascentage. All such inspections may be made no more than [***] each calendar year at reasonable times and on reasonable notice. No accounting period of Unity or its Affiliate or Third Party Sublicensee shall be subject to audit more than one time hereunder. Such independent, certified public accountant will be obliged to execute a reasonable confidentiality agreement prior to commencing any such inspection. The results of any inspection hereunder shall be provided to both Parties, and Unity shall pay any underpayment to Ascentage within [***] ([***)] days. Inspections conducted under this Section 6.2 shall be at the expense of Ascentage (and Ascentage will reimburse Unity's reasonable out-of-pocket costs of those inspections conducted by Unity at Ascentage's request under (b) above), unless a variation or error producing an increase exceeding [***] percent ([***)%] of the amount stated for any period is established in the course of any such inspection, whereupon all costs of such audit of such period will be paid by Unity.

6.3 Payment Method. All payments due hereunder shall be made in U.S. dollars, and shall be made by bank wire transfer in immediately available funds to an account designated by Ascentage in a written notice to Unity. If any currency conversion shall be required in connection with the payment of royalties hereunder, such conversion shall be made by using the exchange rates used by Unity in calculating Unity's own revenues for financial reporting purposes.

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6.4 Late Payments. Any payments due from Unity that are not paid on the date such payments are due under this Agreement shall bear interest at [***] ([***]%) above the then prevailing US Federal Funds Target Rate (Bloomberg page: FDTR <Index>) per annum calculated on a daily basis and payable for the period from the date payment is due until the date payment is actually made. This Section 6.4 shall in no way limit any other remedies available to any Party.

ARTICLE 7 PATENT PROSECUTION AND ENFORCEMENT

7.1 Prosecution of Patents within the Licensed Intellectual Property.

7.1.1 General.

(a) Except as set forth in Section 7.1.1(b) or Section 7.1.1(c) hereof, Ascentage shall have the sole right to control the preparation, filing, prosecution and maintenance of all Licensed Patents using patent counsel of its choice.

(b) Unity shall have the first right, but not the obligation, to prepare, file, prosecute and maintain Licensed Product-Specific Patents. Unity shall (i) keep Ascentage reasonably informed as to its filing and prosecution strategy for Licensed Product-Specific Patents and the filing, prosecution and maintenance of Licensed Product-Specific Patents, (ii) provide Ascentage with a reasonable opportunity to review drafts of proposed patent office submissions with respect to Licensed Product-Specific Patents; and (iii) consider in good faith the requests and suggestions of Ascentage with respect to strategies for filing and prosecuting such Licensed Product-Specific Patents. In the event that Unity desires to abandon or decline further responsibility for any such Licensed Product-Specific Patent, Unity shall provide reasonable prior written notice to Ascentage of such intention to abandon or decline responsibility, but in no case later than [***] ([***]) days prior to any required action relating to the filing, prosecution or maintenance of such Licensed Product-Specific Patent, and Ascentage shall have the right, at its discretion, to assume such responsibility.

(c) With respect to any Licensed Patent (other than a Licensed Product-Specific Patent) that claims the Licensed Compound and/or Licensed Product, Ascentage shall have the first right, but not the obligation, to prepare, file, prosecute and maintain such Licensed Patent and shall (i) keep Unity reasonably informed as to its filing and prosecution strategy for such Licensed Patent and the filing, prosecution and maintenance of such Licensed Patent, (ii) provide Unity with a reasonable opportunity to review drafts of proposed patent office submissions with respect to such Licensed Patent; and (iii) follow the directions given by Unity with respect to filing and prosecuting such Licensed Patents, unless [***], in which case [***] and [***]. In the event that Ascentage desires to abandon or decline further responsibility for any Licensed Patent, Ascentage shall provide Unity [***] notice and the opportunity to assume responsibility for such Licensed Patent.

7.1.2 For purposes of this Article 7, “prosecution and maintenance” of patents and patent applications shall be deemed to include, without limitation, the conduct of interferences or oppositions, and/or requests for re-examinations, reissues or extensions of patent terms.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

7.2 Enforcement of Licensed Patents. If either Party determines that a Third Party is making, using or selling a product that may infringe any Licensed Patent, that Party shall notify the other Party in writing.

7.2.1 Infringement by a Competitive Product.

(a) With respect to any such infringing activity that involves the manufacture, use or sale by a Third Party of any product that [***] ("Competitive Product"), Unity shall have the first right, at its sole option, to bring suit to enforce any Licensed Patent, and/or to defend any declaratory judgment action with respect thereto ("Enforcement Action"); provided, however, that Unity shall keep Ascentage reasonably informed as to the defense and/or settlement of any such Enforcement Action. Ascentage shall have the right to participate in any such Enforcement Action with counsel of its own choice at its own expense. All recoveries received by Unity from an Enforcement Action shall be first applied to reimburse Unity's and then Ascentage's unreimbursed expenses, including without limitation, reasonable attorney's fees and court costs. Any remainder shall, to the extent the same pertains to an infringing activity that involves the manufacture, use or sale by a Third Party of any Competitive Product, be treated as Net Sales.

7.2.2 In the event Unity elects not to initiate an Enforcement Action with respect to any commercially significant infringing activity that involves the manufacture, use or sale by a Third Party of any Competitive Product within [***] ([***]) days of a request by Ascentage to do so ([***]), Ascentage may initiate such action at its expense. Unity shall have the right to participate in any such action with counsel of its own choice at its own expense. All recoveries received by Ascentage from an Enforcement Action shall be first applied to reimburse Ascentage's and then Unity's unreimbursed expenses, including without limitation, reasonable attorney's fees and court costs. Any remainder shall, to the extent the same pertains to an infringement of the Licensed Patents, be split [***].

7.2.3 Other Instances of Infringement. With respect to any such infringing activity that does not involve the manufacture, use or sale by a Third Party of a Competitive Product, Ascentage shall have the sole right, at its sole option, to bring suit to enforce any Licensed Patent, and/or to defend any declaratory judgment action with respect thereto and to retain all recoveries received by Ascentage in connection therewith.

7.3 Infringement Claims Against Unity. If the production, sale or use of a Licensed Product pursuant to this Agreement results in any claim, suit or proceeding alleging patent infringement against Unity (or its Affiliates or sublicensees), Unity shall promptly notify Ascentage thereof in writing setting forth the facts of such claim in reasonable detail. As between the Parties, Unity will be entitled to control the defense in any such action(s). Unity agrees to keep Ascentage reasonably informed of all material developments in connection with any such claim, suit or proceeding as it relates to the Licensed Intellectual Property. Notwithstanding the above, Unity shall not admit the invalidity of any Licensed Patent without written consent from Ascentage.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

7.4 Cooperation. In any legal action undertaken by a Party pursuant to Sections 7.2 or 7.3 of this Agreement (the Party bringing or defending such legal action, the “Enforcing Party”), the non-Enforcing Party shall cooperate fully with the Enforcing Party, including without limitation by joining as a party plaintiff if necessary for legal standing and executing such documents as the Enforcing Party may reasonably request. Upon the request of, and at the expense of, the Enforcing Party, the non-Enforcing Party shall make available at reasonable times and under appropriate conditions all relevant personnel, records, papers, information, samples, specimens and other similar materials in its possession.

7.5 No Implied Obligations. Except as expressly provided in this Article 7, neither Party has any obligation to bring or prosecute actions or suits against any Third Party for patent infringement.

7.6 UM License Agreement. Notwithstanding the foregoing provisions of this Article 7, with respect to the Licensed Patents subject of the UM License Agreement, Unity’s rights under this Article 7 shall be limited to the extent of Ascentage’s rights to prosecute and enforce such Licensed Patents under the UM License Agreement, provided that (a) with respect to Licensed Product-Specific Patents that have been in-licensed from UM, to the extent the UM License Agreement will not permit Unity to control the prosecution of such patents, Ascentage agrees to (i) share with Unity the information Ascentage receives from UM under Section 7.2 of the UM License Agreement with respect to such patents, (ii) provide Unity with a reasonable opportunity to review and comment upon such information; and (iii) pass along to UM Unity’s comments and requested actions, and (b) Ascentage shall at Unity’s request and expense cooperate with Unity in order exercise the enforcement rights granted to Ascentage under Section 8.1 of the UM License Agreement, in each case permitted by the UM License Agreement.

ARTICLE 8 OPTION FOR CHINA JOINT VENTURE

8.1 Option for China JVCO. Unity shall grant to Ascentage an option to commercialize Licensed Products in Greater China jointly with Unity through the joint venture entity (“China JVCO”) to be established in accordance with Section 8.4 of the Library Agreement (“JVCO Option”). The process for exercise of the JVCO Option and all documents relating to China JVCO shall be agreed upon by [***] and [***] within [***] following the execution of the Library Agreement.

8.2 Limitation of Obligations; Certain Covenants

8.2.1 Notwithstanding anything to the contrary, nothing in this Agreement shall be deemed to have granted Unity or any of its sublicensees the right to develop, manufacture, distribute, sell or otherwise commercialize the Licensed Products in the Greater China.

8.2.2 Ascentage hereby covenants that it shall not develop, manufacture, distribute, sell or otherwise commercialize the Licensed Compound (including any Licensed Products containing the Licensed Compound) in the Greater China except through the China JVCO. In the event of a breach by Ascentage of its obligations under this Section 8.2.2, the [***] and [***] shall [***].

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

8.2.3 Unity and Ascentage hereby covenant that they shall cooperate with respect to the establishment of the China JVCO, including without limitation by (a) initiating negotiation of the form agreements relating to the JVCO within [***] of the effective date of the Library Agreement, (b) using commercially reasonable efforts to reach agreement on such form agreements within [***] ([***]) [***] of the effective date of the Library Agreement, including ensuring that [***] and [***] devote at least [***] to such negotiations until such form agreements are agreed upon, and (c) signing the agreements for establishment of the China JVCO agreed upon by [***] and [***].

ARTICLE 9 CONFIDENTIALITY

9.1 **Confidential Information.** Except as otherwise expressly provided herein, the parties agree that the receiving party shall not, except as expressly provided in this Article 9, disclose to any Third Party or use for any purpose any information which is disclosed to it by the other party, whether orally or in writing, and identified as confidential (“**Confidential Information**”), except to the extent that it can be established by the receiving party by competent proof that such information:

(a) Was already known to the receiving party, other than under an obligation of confidentiality, at the time of disclosure;

(b) Was generally available to the public or otherwise part of the public domain at the time of its disclosure to the receiving party;

(c) Became generally available to the public or otherwise part of the public domain after its disclosure and other than through any act or omission of the receiving party in breach of this Agreement;

(d) Was independently developed by the receiving party without reference to information provided by the disclosing party as demonstrated by documented evidence prepared contemporaneously with such independent development; or

(e) Was disclosed to the receiving party, other than under an obligation of confidentiality, by a Third Party who had no obligation to the disclosing party not to disclose such information to others.

9.2 **Permitted Use and Disclosures.** Each party hereto may use or disclose Confidential Information of the other party to the extent such use or disclosure is reasonably necessary in the following instances: (a) exercising the rights granted to it hereunder (including, in the case of Unity, developing, commercializing and/or sublicensing of Licensed Products) or in carrying out its obligations hereunder; (b) filing or prosecuting Patents as permitted by this Agreement;

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(a) prosecuting or defending litigation; and (d) complying with applicable court orders or governmental regulations. Notwithstanding the foregoing, in the event a party is required to make a disclosure of the other party's Confidential Information pursuant to clause (c) or (d) of this Section 8.2, it will, except where impracticable, give reasonable advance notice to the disclosing party of such disclosure and use efforts to secure confidential treatment of such information at least as diligent as such party would use to protect its own confidential information, but in no event less than reasonable efforts. In addition, Unity shall have the right to disclose Confidential Information regarding the Licensed Compound or Licensed Products to Third Parties in connection with due diligence or similar investigations, to potential Third Party investors, and others on a need to know basis, in each case under terms of confidentiality that are appropriate for the circumstances, or to the extent required by law.

9.3 Nondisclosure of Terms. Each of the parties hereto agrees not to disclose the terms of this Agreement to any Third Party without the prior written consent of the other party hereto, which consent shall not be unreasonably withheld; provided that a party may disclose the terms of this Agreement without such consent to such party's attorneys and advisors, to Third Parties in connection with due diligence or similar investigations, to potential Third Party investors, and others on a need to know basis, in each case under terms of confidentiality that are appropriate for the circumstances, or to the extent required by law.

9.4 Public Announcement. Unity may, in its discretion, issue a press release announcing the formation of this Agreement, which shall be substantially in a form approved by Ascentage prior to execution of the Agreement. Except with respect to such initial release or as otherwise required by law, neither party shall issue an additional press release or public announcement relating to this Agreement without the prior written approval of the other party, which shall not be withheld unreasonably. Either party may refer to the license granted under this Agreement in promotional and other communications with prospective customers and investors, subject to the prior written approval of the other party of the form, substance and intended use of such reference, and provided that such disclosure shall not include any technical details or any financial terms of the license. For purposes of clarification, after a party has obtained the other party's written approval of the form, substance and intended use of a particular reference, no further approval of the other party will be required for inclusion of the same reference in future communications that are intended for the same use.

ARTICLE 10 INDEMNIFICATION

10.1 Unity. Unity agrees to indemnify and defend Ascentage and its directors, officers, employees, agents and their respective successors, heirs and assigns (the "Ascentage Indemnitees") against any losses, costs, claims, damages, liabilities or expense (including reasonable attorneys' and professional fees and other expenses of litigation) (collectively, "Liabilities") arising, directly or indirectly out of or in connection with Third Party claims, suits, actions, demands or judgments, to the extent (a) relating to Licensed Products developed, manufactured, used, sold or otherwise distributed by or on behalf of Unity, its Affiliates, sublicensees or other designees (excluding Ascentage, its Affiliates and licensees) including, without limitation, product liability and patent infringement claims, or (b) resulting from a breach by Unity of its representations and warranties under this Agreement, except, in each case, to the extent such Liabilities result from the negligence or intentional misconduct of Ascentage or Ascentage's breach of its representations and warranties under this Agreement, including without limitation its product warranties under Section 1.13 of Schedule 4.1.

10.2 Ascentage. Ascentage agrees to indemnify and defend Unity and its directors, officers, employees, agents and their respective heirs and assigns (the "Unity Indemnitees") against any Liabilities arising, directly or indirectly out of or in connection with Third Party claims, suits, actions, demands or judgments, to the extent resulting from a breach by Ascentage of its representations and warranties under this Agreement, including without limitation its product warranties under Section 1.13 of Schedule 4.1, except, in each case, to the extent such Liabilities result from the negligence or intentional misconduct of Unity or Unity's breach of its representations and warranties under this Agreement.

10.3 Procedure. In the event that any party intends to claim indemnification under this Article 10 (each such party, an "Indemnitee") it shall promptly notify the other Party in writing of such alleged Liability. The indemnifying Party shall have the right to control the defense thereof with counsel of its choice as long as such counsel is reasonably acceptable to Indemnitee; provided, however, that any Indemnitee shall have the right to retain its own counsel at its own expense, for any reason, including if representation of any Indemnitee by the counsel retained by the indemnifying Party would be inappropriate due to actual or potential differing interests between such Indemnitee and any other Party reasonably represented by such counsel in such proceeding. The indemnifying Party shall keep the Indemnitee regularly informed of the status of the defense of any action, claim or liability covered by this Article 10 and shall take into consideration the Indemnitee's reasonable comments thereon. The affected Indemnitee shall cooperate with the indemnifying Party and its legal representatives in the investigation of any action, claim or liability covered by this Article 10. The Indemnitee shall not compromise or settle any claim or suit, or voluntarily incur any expense with respect to any such claim or suit, in each case, without the prior written consent of the indemnifying Party, which such Party shall not be required to give. The failure to deliver written notice to the indemnifying Party within a reasonable time after the commencement of any action with respect to any action, claim or liability covered by this Article 10, if prejudicial to its ability to defend such action, shall relieve the indemnifying Party of any liability to the Indemnitee under this Article 10.

ARTICLE 11 REPRESENTATIONS AND WARRANTIES

11.1 General Warranties. Each Party represents and warrants to the other Party that it is a corporation duly organized and validly existing under the laws of the state or country of its incorporation, the execution, delivery and performance of this Agreement by such Party has been duly authorized by all requisite corporate action, and it has the power and authority to execute and deliver this Agreement and to perform its obligations hereunder (including, in the case of Ascentage, granting the rights and licenses described in Article 2).

11.2 Ascentage Warranties. Ascentage represents and warrants on its own behalf and on behalf of its Affiliates that as of the Effective Date:

(a) except as otherwise disclosed to Unity in writing prior to the Effective Date, (i) Ascentage has not received written notice from a Third Party claiming that the Licensed Compound infringes the intellectual property rights of any Third Party, and (ii) Ascentage is not a party to any legal action, suit or proceeding relating to the Licensed Compound.

(b) except as otherwise disclosed to Unity in writing prior to the Effective Date, there are no actual or pending actions, suits or claims, by any Third Party (i) challenging the ownership of the Licensed Compound; or (b) challenging the validity, effectiveness, enforceability, or ownership of the Licensed Intellectual Property.

(c) except as otherwise disclosed to Unity in writing prior to the Effective Date, the Licensed Patents are subsisting, in force or pending, as the case may be, and are not the subject of any interference, reissue, reexamination, opposition, cancellation or similar administrative proceedings.

(d) except as otherwise disclosed to Unity in writing prior to the Effective Date, Ascentage has not brought a claim alleging an infringement by a Third Party of any of the Licensed Patents and to Ascentage's actual knowledge, there is no actual or alleged infringement by a Third Party of any of the Patents within the Licensed Patents.

(e) there are no Patents: (a) filed by Ascentage and subsequently assigned to Third Party, or (b) with respect to which Ascentage or its Affiliates have acquired rights from a Third Party (i.e., through in-licenses, cross-licenses or otherwise), in each case that (i) would be required for Unity to research, develop, manufacture, use or commercialize the Licensed Compound and (ii) are not included within the Licensed Intellectual Property.

(f) except as otherwise disclosed to Unity in writing prior to the Effective Date, there are no actual or pending suits or claims by any Third Party asserting that the manufacture, use, sale, offer for sale or importing of the Licensed Compound infringes the intellectual property of a Third Party and to Ascentage's knowledge, the development and commercialization of the Licensed Compound would not infringe (i) any issued Patents of any Third Party (other than Patents in-licensed from UM), or (ii) any published Patent claim of any Third Party (other than claims of Patents in-licensed from UM) if such claim were to issue as published.

(g) Ascentage has disclosed to Unity all material agreements with Third Parties in effect as of the Effective Date pursuant to which Licensed Intellectual Property was licensed, acquired or sold, including without limitation all amendments to the UM License Agreement entered into by UM and Ascentage subsequent to the effective date of the License Agreement.

(h) Ascentage has not previously granted and will not grant any rights in the Licensed Intellectual Property that are inconsistent with the rights and licenses granted to Unity herein.

11.3 Certain Rights and Obligations under the UM License Agreement.

(a) Ascentage shall not modify, amend or otherwise alter the UM License Agreement to the extent the same would materially and adversely affect Unity's rights under this Agreement.

(b) Ascentage shall not (a) exercise or fail to exercise any right under the UM License Agreement or (b) provide or fail to provide any consent or approval with respect to any right or obligation under the UM License Agreement, in each case to the extent the same would materially and adversely affect Unity's rights under this Agreement.

(c) Ascentage shall not unilaterally terminate the UM License Agreement.

11.4 Disclaimer. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER PARTY MAKES ANY REPRESENTATIONS OR EXTENDS ANY WARRANTIES TO THE OTHER PARTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, REGARDING THE LICENSED COMPOUND, LICENSED PRODUCTS OR THE LICENSED INTELLECTUAL PROPERTY, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, AND VALIDITY OF LICENSED INTELLECTUAL PROPERTY CLAIMS, ISSUED OR PENDING.

11.5 Limitation of Liability. EXCEPT FOR LIABILITY FOR BREACH OF ARTICLE 9, NEITHER PARTY SHALL BE ENTITLED TO RECOVER FROM THE OTHER PARTY ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES IN CONNECTION WITH THIS AGREEMENT; *provided, however,* that this Section 11.5 shall not be construed to limit either party's indemnification obligations under Article 10.

ARTICLE 12 TERM AND TERMINATION

12.1 Term. The term of this Agreement shall commence on the Effective Date and, unless earlier terminated as provided in this Article 12, shall continue in full force and effect on a country-by-country basis until the expiration of all royalty obligations pursuant to this Agreement for such country, as provided in Section 5.4 above. Unity's license with respect to the Licensed Technology shall survive the expiration (but not an earlier termination) of this Agreement, provided that such license shall thereafter become nonexclusive and fully paid-up.

12.2 Termination for Breach. Either Party may terminate this Agreement in the event that the other Party shall have materially breached or defaulted in the performance of any of its material obligations hereunder, and such breach or default shall have continued for sixty (60) days after written notice of such breach and intent to terminate this Agreement therefor was provided to the breaching Party by the nonbreaching Party. Any such termination shall become effective at the end of such sixty (60) day period unless the breaching Party has cured any such breach or default prior to the expiration of the sixty (60) day period. Notwithstanding the foregoing, if the Party alleged to be in breach of this Agreement in good faith disputes such breach within such sixty (60) day period, the nonbreaching Party shall not have the right to terminate this Agreement unless it has been determined by arbitration pursuant to Section 13.2 that this Agreement was materially breached, and the breaching Party fails to comply with its obligations hereunder within sixty (60) days after such determination.

12.3 Termination by Unity. Any provision herein notwithstanding, Unity may terminate this Agreement, in its entirety or as to any particular Patent within the Licensed Patents, or as to any particular Licensed Product, at any time by giving Ascentage at least ninety (90) days prior written notice. From and after the effective date of a termination under this Section 12.3 with respect to a particular Patent in a particular country, such Patent shall cease to be within the Licensed Patents for all purposes of this Agreement, and all rights and obligations of Unity with respect to such Patent(s) shall terminate. From and after the effective date of a termination under this Section 12.3 with respect to a particular Licensed Product, the license granted under Section 2.1 above shall terminate with respect to such Licensed Product, and the same shall cease to be a Licensed Product for all purposes of this Agreement. Upon a termination of this Agreement in its entirety under this Section 12.3, all rights and obligations of the parties shall terminate, except as provided in Section 12.4 below. For clarity, Unity shall remain obligated to pay any and all milestone and other payments accrued, due and payable to Ascentage prior to such termination.

12.4 Effect of Termination.

12.4.1 Accrued Obligations. Expiration or any termination of this Agreement shall not release either Party hereto from any liability which at the time of such expiration or termination has already accrued to such Party or which is attributable to a period prior to such expiration or termination, subject to the terms of this Agreement, nor preclude either Party from pursuing any rights and remedies it may have hereunder or at law or in equity which accrued to it prior to such expiration or termination, subject to the terms of this Agreement.

12.4.2 Sales of Existing Inventory of Licensed Product. In the event this Agreement is terminated for any reason with respect to a Licensed Product after the first approval of an MAA for such Licensed Product, Unity shall provide Ascentage with a written inventory of all quantities of such Licensed Product that Unity and its Affiliates have in stock and, for a period of [***] ([***)] [***] after such termination, Unity and its Affiliates shall have the right to sell or otherwise dispose of such Licensed Product, all subject to the payment to Ascentage of royalties pursuant to Article 5 hereof.

12.4.3 Survival of Sublicenses. Upon termination of this Agreement for any reason, any sublicense granted by Unity hereunder to a Third Party Sublicensee shall survive, provided that such Third Party Sublicensee continues to pay to Ascentage the milestones and royalties that would have been due to Ascentage under this Agreement based on such Third Party Sublicensee's activities had this Agreement not terminated. For clarity, in the event that a Third Party Sublicensee fails to pay to Ascentage the applicable milestones and royalties due to Ascentage based on such Third Party Sublicensee's activities, Ascentage shall be entitled to terminate such surviving sublicense by providing such Third Party Sublicensee written notice of termination, which notice shall take effect [***] ([***)] days after it is received by such Third Party Sublicensee unless such Third Party Sublicensee has cured any such breach or default prior to the expiration of the [***] ([***)] day period.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

12.4.4 Library Agreement. This Agreement is independent of, and shall not be affected by, the expiration or termination of the Library Agreement, and vice versa.

12.4.5 Survival. Articles 1 (Definitions), 6 (Accounting; Records; Method of Payment), 9 (Confidentiality), 10 (Indemnification), 13 (Dispute Resolution) and 14 (Miscellaneous) and Sections 7.2.1 (with respect to any ongoing Enforcement Action), 11.3, 11.4 and 12.4 shall survive the expiration or termination of this Agreement for any reason. Except as otherwise provided in this ARTICLE 12, all rights and obligations of the parties under this Agreement shall terminate upon the expiration or termination of this Agreement.

ARTICLE 13 DISPUTE RESOLUTION

13.1 Dispute Resolution. If an unresolved dispute arises out of or relates to this Agreement, or the breach thereof, either Party may refer such dispute to the [***] of Unity and Ascentage, who shall meet in person or by telephone within [***] ([***)] days after such referral to attempt in good faith to resolve such dispute. If such matter cannot be resolved by discussion of such officers within such [***] ([***)] days period (as may be extended by mutual agreement), either Party shall be entitled to seek resolution of such dispute pursuant to Section 13.2 below.

13.2 Arbitration. If the parties are unable to resolve a dispute on an issue of interpretation, breach or enforcement of this Agreement, the parties shall refer such dispute to be finally resolved by binding arbitration under the terms of this Section 13.2, except that all disputes with respect to the validity or infringement of Patents shall be subject to applicable federal court jurisdiction and not subject to the terms of this Section 13.2. Whenever a party shall decide to institute arbitration proceedings, it shall give written notice to that effect to the other party. Any such arbitration shall be conducted under the [***] by a panel of three (3) arbitrators in [***]. Each party shall select one (1) arbitrator who is not employed by, or otherwise affiliated with, such party within [***] ([***)] days after the institution of arbitration proceedings, and the two (2) arbitrators so selected shall designate the third arbitrator. The parties shall use their commercially reasonable efforts to conclude the arbitration hearings within [***] ([***)] [***] following the confirmation of the third and presiding arbitrator.

13.3 Injunctive Relief. Each Party shall be free to seek preliminary or permanent injunctive relief, restraining order or degree of specific performance in any court of competent jurisdiction. For avoidance of doubt, any such equitable remedies provided under this Section 13.3 shall be cumulative and not exclusive and are in addition to any other remedies, which either Party may have under this Agreement or applicable law.

ARTICLE 14 MISCELLANEOUS

14.1 Governing Laws. This Agreement and any dispute arising from the construction, performance or breach hereof shall be governed by and construed, and enforced in accordance with, the laws of the state of New York, USA, without reference to conflicts of laws principles.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

14.2 Waiver. It is agreed that no waiver by either Party hereto of any breach or default of any of the covenants or agreements herein set forth shall be deemed a waiver as to any subsequent and/or similar breach or default.

14.3 Assignment. This Agreement shall not be assignable by either party without the written consent of the other party hereto, except that either party may assign this Agreement, without such consent, to an entity that acquires all or substantially all of the business or assets of such party to which this Agreement relates, whether by merger, reorganization, acquisition, sale, or otherwise; provided, however, that within [***] ([***)] days of such an assignment, the assignee shall agree in writing to be bound by the terms and conditions of this Agreement. Subject to the foregoing, this Agreement shall bind and inure to the benefit of each party's successors and permitted assigns.

14.4 Independent Contractors. The relationship of the Parties hereto is that of independent contractors. The Parties hereto are not deemed to be agents, partners or joint venturers of the others for any purpose as a result of this Agreement or the transactions contemplated thereby.

14.5 Compliance with Laws. In exercising their rights under this Agreement, the Parties shall fully comply in all material respects with the requirements of any and all applicable laws, regulations, rules and orders of any governmental body having jurisdiction over the exercise of rights under this license including, without limitation, those applicable to the discovery, development, manufacture, distribution, import and export and sale of Licensed Products pursuant to this Agreement.

14.6 Notices. All notices, requests and other communications hereunder shall be in writing and shall be personally delivered or by registered or certified mail, return receipt requested, postage prepaid, in each case to the respective address specified below, or such other address as may be specified in writing to the other Parties hereto and shall be deemed to have been given upon receipt:

If to Unity: Unity Biotechnology, Inc.
1700 Owens Street, Suite 535
San Francisco, CA 94158, USA
Attention: [***]
Email: [***]

If to Ascentage: Ascentage Pharma Group Corp. Ltd.
Room 201, QB3 Building, Medical City Avenue
Hi-Tech BioMed District, Taizhou City, Jiangsu Province
P.R. China, 225300
Attention: [***]
Email: [***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

14.7 Severability. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect to the fullest extent permitted by law without said provision, and the Parties shall amend the Agreement to the extent feasible to lawfully include the substance of the excluded term to as fully as possible realize the intent of the Parties and their commercial bargain.

14.8 Advice of Counsel. Unity and Ascentage have each consulted counsel of their choice regarding this Agreement, and each acknowledges and agrees that this Agreement shall not be deemed to have been drafted by one Party or another and will be construed accordingly.

14.9 Performance Warranty. Each Party hereby warrants and guarantees the performance of any and all rights and obligations of this Agreement by its Affiliates, licensees and sublicensees.

14.10 Force Majeure. Neither Party shall lose any rights hereunder or be liable to the other Party for damages or losses (except for payment obligations) on account of failure of performance by the defaulting Party if the failure is occasioned by war, strike, fire, Act of God, earthquake, flood, lockout, embargo, unusual and unexpected governmental intervention, failure of suppliers, or any other reason where failure to perform is beyond the reasonable control and not caused by the negligence, intentional conduct or misconduct of the non-performing Party and such Party has exerted all reasonable efforts to avoid or remedy such force majeure; provided, however, that in no event shall a Party be required to settle any labor dispute or disturbance.

14.11 Complete Agreement. This Agreement with its schedules, together with the Library Agreement and its exhibits, constitutes the entire agreement, both written and oral, between the Parties with respect to the subject matter hereof, and all prior agreements respecting the subject matter hereof, either written or oral, express or implied, shall be abrogated, canceled, and are null and void and of no effect. No amendment or change hereof or addition hereto shall be effective or binding on either of the Parties hereto unless reduced to writing and executed by the respective duly authorized representatives of Unity and Ascentage.

14.12 Headings. The captions to the several Sections and Articles hereof are not a Part of this Agreement, but are included merely for convenience of reference and shall not affect its meaning or interpretation.

14.13 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to be one and the same agreement.

14.14 Bankruptcy. All rights and licenses granted under or pursuant to this Agreement by each Party as a licensor are, and shall otherwise be deemed to be, for purposes of Section 365(n) of Title 11, U.S. Code (the "Bankruptcy Code"), licenses of rights to "intellectual property" as defined under section 101(35A) of the Bankruptcy Code. The Parties agree that each licensee of such rights under this Agreement, shall retain and may fully exercise all rights and elections it would have in the case of a licensor bankruptcy under the Bankruptcy Code. Each Party agrees during the term of this Agreement to create or maintain current copies, or if not amenable to copying, detailed descriptions or other appropriate embodiments, of all such intellectual property licensed to the other Party.

IN WITNESS WHEREOF, the Parties hereto have caused their duly authorized representatives to execute this Agreement.

ASCENTAGE PHARMA GROUP CORP. LTD.

UNITY BIOTECHNOLOGY, INC.

By: _____

By: _____

Name: Dajun Yang, MD, PhD

Name: Nathaniel David, PhD

Title: Chief Executive Officer

Title: Chief Executive Officer

Schedule 1.11 – Licensed Compound

Schedule 3.3 – Back-up Compound

Schedule 4.1 – Supply Terms

SCHEDULE 1.11

LICENSED COMPOUND

SCHEDULE 3.3

BACK-UP COMPOUND

SCHEDULE 4.1

SUPPLY TERMS

1.1 Product Supply. Ascentage shall supply Unity, its Affiliates and Sublicensees with such quantities of Clinical Materials and Licensed Compound as Unity, its Affiliates and Sublicensees may order from time-to-time during the term of the Agreement.

1.2 Clinical Supplies. Unity shall be entitled to order quantities of Clinical Materials and Licensed Compound for use in clinical trials and for development purposes (e.g., stability studies and other analytical purposes) in accordance with the terms of this Section 1.2.

(a) Clinical Materials. As used herein, "Clinical Materials" shall mean Licensed Product that has been manufactured, labeled and packaged in compliance with applicable laws relating to experimental materials to be administered to human test subjects.

(b) Prior to completion of Phase II Clinical Trial. Prior to the completion of the first Phase II Clinical Trial carried out by Unity, its Affiliates and Sublicensees with respect to the Licensed Product, Ascentage shall supply to Unity the quantities of Clinical Materials that Unity may order from time-to-time order from Ascentage in accordance with this Section 1.2.

(c) After completion of Phase II Clinical Trial. Following completion of the first Phase II Clinical Trial carried out by Unity, its Affiliates and Sublicensees with respect to the Licensed Product, Ascentage shall supply to Unity the quantities of (i) Clinical Materials and/or (ii) Licensed Compound, that Unity may order from time-to-time order from Ascentage in accordance with this Section 1.2, in each case for use by Unity, its Affiliates and Sublicensees in carrying out additional clinical studies of the Licensed Product.

(d) Procedures. Unity shall periodically submit purchase orders to Ascentage for quantities of Clinical Materials and/or Licensed Compound, which purchase orders shall set forth the specific quantities needed, requested delivery date and shipping instructions. Such purchase orders shall be submitted to Ascentage with a minimal lead time [***]. Ascentage shall supply the quantities of Clinical Materials and/or Licensed Compound ordered by Unity by the delivery date designated by Unity in the relevant purchase order provided such order has been placed by Unity with at least the minimum lead time [***]. Ascentage does not guarantee fulfillment of any purchase orders less than the minimal lead time, however Ascentage will use commercially reasonable efforts to fulfill those purchase orders. No terms contained in any purchase order, order acknowledgment or similar standardized form shall be construed to amend or modify the terms of this Schedule 4.1 and in the event of any conflict, this Schedule 4.1 shall control, unless the Parties otherwise expressly agree in writing.

1.3 Commercial Supply. Unity shall be entitled to order quantities Licensed Compound for use in the manufacture of Licensed Product for commercial use in accordance with the terms of this Section 1.3.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(a) Rolling Forecasts. At least [***] ([***)] [***] prior to the first calendar quarter for which Unity will order commercial supplies of Licensed Compound, and thereafter at least [***] ([***)] [***] prior to the start of each subsequent calendar quarter, Unity shall provide Ascentage with an updated rolling written forecast of the quantities of the Licensed Compound estimated to be required on a month-by-month basis during the first calendar quarter for which Unity will order commercial supplies of the Licensed Compound for sale in the Unity Territory (“Q1”) and the next three (3) quarters (“Q2”, “Q3”, “Q4”, respectively). Unity shall only be obligated to purchase, and Ascentage shall only be obligated to supply, the quantities of Licensed Compound set forth in such forecast to the extent provided in Section 1.3(b) below.

(b) Orders.

(i) Orders. Together with each forecast provided under Section 1.3(a) above (the “Current Forecast”), Unity shall place its purchase order with Ascentage for delivery in Q1 of that quantity of Licensed Compound equal to the greater of: (i) the quantity of Licensed Compound reflected for Q1 in the Current Forecast; (ii) [***] percent ([***)%] of the quantity forecast for Q2 in the forecast provided under Section 1.3(a) above for the immediately preceding calendar quarter (the “First Preceding Forecast”); and (iii) [***] percent ([***)%] of the quantity forecast for Q3 in the forecast immediately preceding the First Preceding Forecast (the “Second Preceding Forecast”). Ascentage shall accept such orders from Unity, subject to the remaining terms and conditions of this Agreement, provided that Ascentage shall not be obligated to accept orders for Q1 to the extent the quantity ordered exceeds the lesser of: (i) [***] percent ([***)%] of the quantity forecast for Q2 in the First Preceding Forecast; and (ii) [***] percent ([***)%] of the quantity forecast for Q3 in the Second Preceding Forecast, but shall use good faith efforts to fill orders for such excess quantities from available supplies.

(ii) Form of Order.

(1) Unity’s orders shall be made pursuant to a purchase order which is in a form mutually acceptable to the Parties, and shall provide for shipment in accordance with reasonable delivery schedules as agreed upon from time to time by Ascentage and Unity. Unless otherwise agreed, each order shall be for a minimum of [***] ([***)] [***]. Ascentage shall accept all purchase orders delivered by Unity in accordance with this Schedule 4.1, and shall notify Unity within [***] ([***)] days from receipt of an order of its ability to fill any amounts of such order in excess of the quantities that Ascentage is obligated to supply.

(2) Notwithstanding the foregoing, during the period between the submission of the first purchase order for Licensed Compound under this Section 1.3 and [***] ([***)] months thereafter (“Ramp-Up Period”), Unity may order Product in any mutually agreed quantities provided that the timing of manufacture and delivery of such quantities of Licensed Compound, as well as the minimum remaining shelf life (as defined in Section 1.7) of such Licensed Compound at the time of delivery to Unity, shall be subject to mutual agreement on an order-by-order basis. The Parties shall reasonably cooperate during the Ramp-Up Period to coordinate Ascentage’s manufacturing of other quantities with Unity’s orders during the Ramp-Up Period.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(3) No terms contained in any purchase order, order acknowledgment or similar standardized form shall be construed to amend or modify the terms of this Agreement and in the event of any conflict, this Agreement shall control, unless the Parties otherwise expressly agree in writing.

1.4 Delivery. With respect to exact shipping dates, Ascentage shall [***] (a) ship the ordered quantities of Licensed Compound for commercial use on the dates specified in Unity's purchase orders submitted and accepted in accordance with Section 1.3(b) above or (b) for Clinical Materials and Licensed Compound for use in clinical trials, to ship quantities of the Clinical Materials and Licensed Compound ordered by Unity pursuant to Section 1.2, on the dates requested by Unity in accordance with such Section. All Clinical Materials and Licensed Compound for use in clinical trials ordered under Section 1.2, and Licensed Compound for commercial use ordered under Section 1.3(b) (such Clinical Materials and Licensed Compound, collectively "Products") will be delivered [***] (Incoterms 2010) named place of destination. Title and all risk of loss, delay or damage to the Products shall pass to Unity upon [***]. The shipping packaging shall be in accordance with good commercial practice and agreed by the Parties before shipment with respect to protection of the Product during transportation.

1.5 Specifications and Manufacturing Standards. Ascentage shall only release Product for shipment to Unity which complies with: (a) [***] ("Specifications"); and (b) [***] ("Manufacturing Standards"). Ascentage also agrees to meet the requirements of any regulatory authority in the Territory [***] as soon as reasonably practicable on the condition that: (i) Unity shall notify Ascentage of such requirements; and (ii) any increased cost to Ascentage associated with preparing for, coming into compliance with, and meeting such requirements shall be [***]. The Parties shall, at [***] before commencement of deliveries of the Product to Unity, conclude a separate quality agreement in a format suitable for submission to the Regulatory Authorities in all countries of the Territory, recording the agreed-upon Specifications and Manufacturing Standards and measures to assure compliance with cGMP regarding manufacturing, storage, transportation and release of Product ("Quality Agreement").

1.6 Inspection; Product Rejection. Unity shall, promptly upon receipt of each shipment of the Product, perform a customary inspection.

(a) Each shipment of the Product to Unity shall be accompanied by the following written documentation: (i) the date of manufacture; (ii) delivered amount of Product units; (iii) a certificate of conformance issued by an Ascentage qualified person; (iv) a certificate of analysis setting forth the results of tests performed by Ascentage as required by the Specifications and Manufacturing Standards and (v) any other documentation set forth in the Quality Agreement.

(b) If the Product supplied by Ascentage under this Agreement fails to conform to the applicable Specifications and Manufacturing Standards, Unity shall notify Ascentage no later than [***] ([***]) [***] after its receipt of the Product of such non-conformity and Unity shall immediately present reasonable evidence to Ascentage of such non-conformity. Except as provided in Section 1.6(c) below, if Unity fails to notify Ascentage within such [***] ([***]) [***] period of any non-conformity, the Product shall be deemed to conform to the applicable Specifications and Manufacturing Standards.

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(c) Notwithstanding the last sentence of Section 1.6(b) above, if within [***] ([***]) [***] after Unity's receipt of any Product, Unity discovers any Latent Defects in such Product, Unity shall immediately notify Ascentage in writing and shall present reasonable evidence to Ascentage of such Latent Defects together with such notice. In such case, Ascentage shall replace Product in which such Latent Defects have been discovered in accordance with Section 1.6(d) below, it being understood that the foregoing shall not serve to limit Ascentage's obligations under Section 10.2 to indemnify Unity for Third Party Claims arising from a breach by Ascentage of its product warranties under Section 1.13 of this Schedule 4.1. For purposes of this Section 1.6, "Latent Defect(s)" shall mean any non-conformity of Product to the applicable Specifications and/or Manufacturing Standards at the time of the delivery of Product to Unity that [***]

(d) Ascentage shall replace, at no additional expense to Unity, any Product rejected by Unity pursuant to Section 1.6(b), or any Product in respect of which Unity notifies Ascentage a Latent Defect has been discovered in accordance with Section 1.6(c), as applicable, with new Product which does conform with the Specifications and Manufacturing Standards [***] after receipt of Unity's notification under Section 1.6(b) or Section 1.6(c), as applicable. The Parties may appoint a [***] to analyze any unit of the Product rejected by Unity under Section 1.6(b), or in respect of which Unity notifies Ascentage a Latent Defect has been discovered in accordance with Section 1.6(c), as applicable, and, if [***] that the Product was conforming, then Unity shall be responsible for payment for any such units of Product and any replacement Product shipped by Ascentage. Ascentage shall give Unity written instructions as to how Unity should, at Ascentage's expense, dispose of any non-conforming Product, and such instructions shall comply with all appropriate governmental requirements. The costs of any Third Party determination initiated under this Section 1.6(d) shall be borne by the non-prevailing party.

1.7 Shelf Life. Except as otherwise agreed pursuant to Section 1.3(b)(ii)(2), all Licensed Compound ordered by Unity pursuant to Section 1.3 (i.e., all Licensed Compound to be used in the manufacture of Licensed Product for commercial use) shall at the time of receipt by Unity or its designee, have a minimum shelf-life [***].

1.8 Documentation. Ascentage shall keep and maintain for a duration in accordance with applicable laws: (i) reference samples and quality control records for each batch of raw material and packaging material used in the manufacture of the Product; and (ii) manufacturing and quality control records for each batch of the Product.

1.9 Purchase Price.

(a) Unity shall pay to Ascentage a purchase price for each Product equal to the Cost of Goods Sold for such Product plus [***] percent ([***]%).

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(b) “Cost of Goods Sold” or “COGS” means the cost of goods sold of Products ordered by Unity and supplied by or on behalf of Ascentage to Unity as follows:

(i) To the extent the Product is manufactured by a Third Party under contract with Ascentage, and supplied to Unity by Ascentage, the Cost of Goods Sold shall mean (1) [***] (2) [***].

(ii) To the extent the Product is manufactured or otherwise processed by Ascentage, Cost of Goods Sold shall mean Direct Expenses and Manufacturing Overhead incurred by Ascentage in, and reasonably allocable to, the manufacture of such Product.

(iii) As used herein:

(1) “Direct Expenses” are (A) [***], and (B) [***].

(2) “Manufacturing Overhead” consists of a [***] associated with the manufacture of quantities of Product, for supply to Unity [***] (A) [***], (B) [***], (C) [***], (D) [***], (E) [***], (F) [***], and (G) [***].

(b) Cost of Goods Sold shall be calculated consistent with [***], and shall be consistent from year-to-year. The methodology to be used in making the allocations for any costs included in Cost of Goods Sold shall upon request be reviewed by the Parties.

1.10 Facilities. Ascentage shall manufacture or have manufactured all Product at the Facility(ies) and in accordance with, and shall only release the Products for shipment to Unity which complies with: (i) the Specifications for the Products; and (ii) all applicable Manufacturing Standards and all requirements set forth in the Quality Agreement. As used in this Schedule 4.1, “Facility” shall mean Ascentage’s or Ascentage’s Third Parties contractors cGMP-compliant facilities through which the Products supplied to Unity are manufactured, processed, tested, stored or distributed.

1.11 Unity Right of Inspection. Ascentage shall, upon written request of Unity with reasonable advance notice, permit Unity’s authorized representative, during normal working hours, to inspect (and if reasonably necessary, to copy) all manufacturing and quality control records for all manufacture of the Products.

1.12 Quality Audit. Unity shall be entitled, during normal working hours and upon reasonable prior notice to Ascentage, to inspect the Facility(ies), not more than once every [***], or if more frequent, at each variation of the manufacturing process for the Products. To that effect, Ascentage shall inform Unity of any variation to the manufacturing process of the Products in accordance with the Quality Agreement and as soon as reasonably practicable. Ascentage shall give Unity prior notice, to the extent practicable, of any inspections by the FDA, EMA or other regulatory authority in the Territory of the Facility(ies). Upon Unity’s reasonable written request, Ascentage shall, to the extent Ascentage has the right to do so: (a) permit a representative of Unity to be present at such inspections; (b) disclose to Unity the results of any such inspection by the FDA, EMA or any other regulatory authority in the Territory to the extent related to the Products, but in no event shall Ascentage be obligated to disclose the results of any such inspection to the extent relating to any other product of Ascentage or its Affiliates and/or (c) implement any measures necessary to respond to the regulatory authorities in a satisfactory manner.

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1.13 Product Warranties. Ascentage represents, warrants and covenants to Unity as follows:

(a) All Products supplied hereunder shall comply with all material and applicable laws and Manufacturing Standards and meet all Specifications in all material respects, and Ascentage shall perform and document all manufacturing, processing, storage and supply activities with respect to Products supplied hereunder in compliance with all applicable laws.

(b) All Products supplied hereunder shall, at delivery to Unity or its designee, be in compliance in all respects with the minimum shelf-life requirements agreed upon as described in Section 1.7 of this Schedule 4.1.

(c) The Facility(ies), all equipment used for the manufacture of Products within the Facility(ies), and the activities contemplated herein will comply with all material and applicable laws and shall hold and maintain all governmental registrations, permits, licenses and approvals necessary for it to manufacture Products for Unity under this Agreement.

(d) Title to all Products delivered to Unity under this Agreement shall pass to Unity free and clear of any security interest, lien or other encumbrance.

1.14 Suppliers.

(a) Without limiting Ascentage's responsibility under this Agreement, Ascentage shall have the right at any time to satisfy its supply obligations to Unity hereunder either in whole or in part through arrangements with Third Parties engaged to perform services or supply facilities or goods in connection with the manufacture, testing, and/or packaging of Products; provided that Ascentage shall remain responsible for such activities to the same extent as if Ascentage had performed such activities itself. Ascentage shall give Unity prior written notice of any such arrangement [***] and such notice shall be provided sufficiently in advance to permit Unity to [***] at [***].

(b) Unity shall have the right at any time during the term to qualify and register a Third Party manufacturer of Unity's choosing to manufacture Licensed Compound and/or Licensed Product so long as Unity continues to obtain at least fifty percent (50%) of its overall requirements (on an annualized basis) from Ascentage of Licensed Product (in the case of pre-Phase III Clinical Trials) and Licensed Compound (in the case of Phase III Clinical Trials and commercial supply).

(c) Within a reasonable period from receiving written notice from Unity informing Ascentage of Unity's decision to qualify a Third Party manufacturer to produce Licensed Compound and/or Licensed Products and after such Third Party manufacturer has executed a reasonable and customary confidentiality agreement with Ascentage to Ascentage's reasonable satisfaction, Ascentage and Unity shall implement an appropriate exchange process and schedule for the transfer to Unity or a Third Party manufacturer of Unity's choosing of Technology that is necessary or useful for the manufacture of Licensed Compound and Licensed Products ("Manufacturing Technology") and thereafter shall transfer such Manufacturing Technology to such Third Party manufacturer in accordance with the agreed upon process and schedule. If after such initial transfer Unity identifies a particular item of Technology pertaining to the Licensed Compound and/or the manufacture thereof that is necessary or useful for the manufacture of Licensed Compound and Licensed Products but has not been previously transferred to Unity, Ascentage agrees to use reasonable efforts to provide the same to Unity in a reasonable time frame.

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(d) In consideration for Ascentage's providing the forgoing transfer of Manufacturing Technology with respect to a given Product, Unity agrees to pay to Ascentage a one-time technology transfer fee. The technology transfer fee is meant to compensate Ascentage for the [***] and will be a one-time payment of [***]. Additionally, the Parties agree that following the establishment of such second source, the purchase price due to Ascentage with respect to quantities of Licensed Compound and/or Licensed Product purchased thereafter shall be the [***] of the [***] and the [***] ("Purchase Price Adjustment").

(e) Notwithstanding the foregoing, if Ascentage either materially breaches its obligations under the Supply Agreement or does not supply Unity with Licensed Compound or Licensed Product from [***] ([***]) or more orders submitted by Unity in accordance with Section 1.2(d) or 1.3(b) of this Exhibit 4.1 by the applicable delivery date, and in each case fails to cure such breach or supply failure within [***] ([***]) [***] of written notice from Unity, then (i) the requirement under Section 1.14(b) that Unity obtain at least fifty percent (50%) of its overall requirements from Ascentage of Licensed Compound and Licensed Product shall cease to apply, and (ii) any otherwise applicable Purchase Price Adjustment shall not apply.

1.15 Shortage of Supply.

(a) Cooperation. Ascentage and Unity shall cooperate to establish reasonable plans and procedures to avoid any shortage of supply of Products.

(b) Procedures. If at any time Ascentage becomes unable, or concludes that it will be unable, to supply Unity's requirements for the Products, Ascentage shall promptly notify Unity in writing. In such event, the Parties shall promptly convene to address the problem, including locating alternative suppliers and facilities to increase production and identifying other actions necessary to resolve the problem. Based on such interactions, the Parties shall reasonably agree on appropriate measures to remedy the shortage and shall promptly implement such measures. In any event, both Parties agree to respond with the level of speed and diligence commensurate with the severity of the problem.

(c) Allocation. If despite the foregoing measures Ascentage is unable to supply Unity's requirements of Product, Ascentage shall allocate the quantities of the Product that (i) Ascentage has in inventory [***], and (ii) Ascentage is able to produce [***].

1.16 Termination/Limitations of Minimum Purchase Obligations.

(a) It is understood and agreed that Unity's obligation to obtain at least fifty percent (50%) of its overall requirements of Licensed Compound and Licensed Product from Ascentage is expressly conditioned upon Ascentage achieving and maintaining [***] with respect to [***] of the manufacture of pharmaceutical products. In the event that Unity determines that it would be preferable to have one or more Third Party manufacturers assume responsibility for the manufacture of the majority (or all) of Unity's requirements of Licensed Compound and Licensed Product based on such Third Party manufacturer(s) being [***] with

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respect to [***], then Unity will so inform Ascentage in writing, explaining to Ascentage the basis of its decision and citing the factor(s) with respect to which it has concluded the Third Party manufacturer is [***]. Upon Unity's delivery to Ascentage of such written notice, the requirement under Section 1.14(b) that Unity obtain at least fifty percent (50%) of its overall requirements from Ascentage of Licensed Compound and Licensed Product shall cease to apply. For clarity, it is understood that Unity's determination regarding the [***] of a Third Party manufacturer with respect to [***] (i.e., [***] of the manufacture) shall be [***] that it shall [***] to have one or more Third Party manufacturers assume responsibility for the manufacture of the majority (or all) of Unity's requirements of Licensed Compound and Licensed Product.

(b) It is further agreed that in the event that Unity sublicenses the commercialization of a Licensed Product to a Third Party commercialization partner, notwithstanding anything to the contrary in this Exhibit 4.1, such commercialization partner shall be free to manufacture its requirements of such Licensed Product (including the Licensed Compound contained therein) and that any quantities of Licensed Product and/or Licensed Compound manufactured by or on behalf of such Third Party commercialization partner shall not be taken into account when determining Unity's overall requirements of Licensed Compound and Licensed Product for purposes of minimum purchase obligation in Section 1.14(b) above.

(c) Upon a Change of Control of Unity, the minimum purchase obligations set forth in Section 1.14(b) shall immediately terminate. As used herein, "Change of Control" means (i) the acquisition of Unity by another entity by means of any transaction or series of related transactions to which Unity 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 Unity 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 Unity 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 Unity or such other surviving or resulting entity (or if Unity or such other surviving or resulting entity is a wholly-owned subsidiary immediately following such acquisition, its parent) or (ii) a sale, lease or other disposition of all or substantially all of the assets of Unity and its subsidiaries taken as a whole by means of any transaction or series of related transactions, except where such sale, lease or other disposition is to a wholly-owned subsidiary of Unity.

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EXHIBIT 3.4.2

DILIGENCE REQUIREMENTS

Ascentage shall use commercially reasonable efforts to develop and obtain marketing approval for each Compound that it designates as a Development Candidate, and thereafter shall use commercially reasonable efforts to launch and commercialize each such Compound [***].

Without limiting the foregoing, Ascentage agrees that:

- [***]; and
- [***].

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

FORM OF STOCK ISSUANCE AGREEMENT;
CAPITALIZATION TABLE FOR UNITY

Part A: Form of Stock Issuance Agreement

UNITY BIOTECHNOLOGY, INC.

RESTRICTED STOCK GRANT AGREEMENT

This Restricted Stock Grant Agreement (the “**Agreement**”) is made as of [•] by and between Unity Biotechnology, Inc., a Delaware corporation (the “**Company**”), and Ascentage Pharma Group Corp. Ltd. (the “**Grantee**”).

In consideration of the mutual covenants and representations set forth below, the Company and Grantee agree as follows:

1. *Grant of the Shares.* Subject to the terms and conditions of this Agreement, the Company agrees to grant to Grantee, and Grantee agree to acquire from the Company, on the Closing (as defined below) [•] shares of the Company’s Common Stock, \$0.0001 par value per share (the “**Shares**”), as consideration for services to be provided by Grantee to the Company.

2. *Closing.* The transfer of the Shares shall occur at a closing (the “**Closing**”) to be held on the date first set forth above, or at any other time mutually agreed upon by the Company and Grantee. The Closing will take place at the principal office of the Company or at such other place as shall be designated by the Company. As promptly after the Closing as practicable, the Company will issue a stock certificate, registered in the name of Grantee, reflecting the Shares.

3. *Restrictions on Transfer.*

A. *Investment Representations and Legend Requirements.* The Grantee hereby make the investment representations listed on **Exhibit A** to the Company as of the date of this Agreement and as of the date of the Closing, and agrees that such representations are incorporated into this Agreement by this reference, such that the Company may rely on them in issuing the Shares. Grantee understand and agree that the Company shall cause the legends set forth below, or substantially equivalent legends, to be placed upon any certificate(s) evidencing ownership of the Shares, together with any other legends that may be required by the Company or by applicable state or federal securities laws:

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR THE SECURITIES LAWS OF ANY STATE, AND MAY NOT BE SOLD, TRANSFERRED, ASSIGNED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER SUCH ACT AND/OR APPLICABLE STATE SECURITIES LAWS, OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL OR OTHER EVIDENCE, REASONABLY SATISFACTORY TO THE COMPANY AND ITS COUNSEL, THAT SUCH REGISTRATION IS NOT REQUIRED.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER, A RIGHT OF FIRST REFUSAL, AND A LOCK-UP PERIOD IN THE EVENT OF A PUBLIC OFFERING HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE RESTRICTED STOCK GRANT AGREEMENT BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS, RIGHT OF FIRST REFUSAL AND LOCK-UP PERIOD ARE BINDING ON TRANSFEREES OF THESE SHARES.

THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

B. *Stop-Transfer Notices.* Grantee agree that to ensure compliance with the restrictions referred to herein, the Company may issue appropriate “stop transfer” instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

C. *Refusal to Transfer.* The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any acquirer or other transferee to whom such Shares shall have been so transferred.

D. *Lock-Up Period.* Grantee hereby agree that Grantee shall not sell, offer, pledge, contract to sell, grant any option or contract to purchase, purchase any option or contract to sell, grant any right or warrant to purchase, lend or otherwise transfer or encumber, directly or indirectly, any Shares or other securities of the Company, nor shall Grantee enter into any swap, hedging or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Shares or other securities of the Company, during the period from the filing of the first registration statement of the Company filed under the Securities Act of 1933, as amended (the “**Securities Act**”), that includes securities to be sold on behalf of the Company to the public in an underwritten public offering under the Securities Act through the end of the 180-day period following the effective date of such registration statement (or such other period as may be requested by the Company or the underwriters to accommodate regulatory restrictions on (i) the publication or other distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in NASD Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto). The obligations described in this section shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a transaction on Form S-4 or similar forms that may be promulgated in the future. Grantee further agree, if so requested by the Company or any representative of its underwriters, to enter into such underwriter’s standard form of “lockup” or “market standoff” agreement in a form satisfactory to the Company and such underwriter. The Company may impose stop-transfer instructions with respect to securities subject to the foregoing restrictions until the end of any such restriction period.

4. *Company’s Right of First Refusal.* Before any Shares acquired by the Grantee pursuant to this Agreement (or any beneficial interest in such Shares) may be sold, transferred, encumbered or otherwise disposed of in any way (whether by operation of law or otherwise) by the Grantee or any subsequent transferee (each a “**Holder**”), such Holder must first offer such Shares or beneficial interest to the Company and/or its assignee(s) as follows:

A. *Notice of Proposed Transfer.* The Holder shall deliver to the Company a written notice stating: (i) the Holder’s bona fide intention to sell or otherwise transfer the Shares; (ii) the name of each proposed transferee; (iii) the number of Shares to be transferred to each proposed transferee; (iv) the bona fide cash price or other consideration for which the Holder proposes to transfer the Shares; and (v) that by delivering the notice, the Holder offers all such Shares to the Company and/or its assignee(s) pursuant to this section and on the same terms described in the notice.

B. *Exercise of Right of First Refusal.* At any time within 30 days after receipt of the Holder’s notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the proposed transferees, at the purchase price determined in accordance with Section 4.C.

C. *Purchase Price.* The purchase price for the Shares purchased by the Company and/or its assignee(s) under this section shall be the price listed in the Holder’s notice. If the price listed in the Holder’s notice includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in its sole discretion.

D. *Payment.* Payment of the purchase price shall be made, at the option of the Company and/or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company and/or its assignee(s), or by any combination thereof within 30 days after receipt by the Company of the Holder's notice (or at such later date as is called for by such notice).

E. *Holder's Right to Transfer.* If all of the Shares proposed in the notice to be transferred to a given proposed transferee are not purchased by the Company and/or its assignee(s) as provided in this section, then the Holder may sell or otherwise transfer such Shares to that proposed transferee; *provided that:* (i) the transfer is made only on the terms provided for in the notice, with the exception of the purchase price, which may be either the price listed in the notice or any higher price; (ii) such transfer is consummated within 60 days after the date the notice is delivered to the Company; (iii) the transfer is effected in accordance with any applicable securities laws, and if requested by the Company, the Holder shall have delivered an opinion of counsel acceptable to the Company to that effect; and (iv) the proposed transferee agrees in writing to receive and hold the Shares so transferred subject to all of the provisions of this Agreement, including but not limited to this section, and there shall be no further transfer of such Shares except in accordance with the terms of this section. If any Shares described in a notice are not transferred to the proposed transferee within the period provided above, then before any such Shares may be transferred, a new notice shall be given to the Company, and the Company and/or its assignees shall again be offered the right of first refusal described in this section.

F. *Exception for Certain Family Transfers.* Notwithstanding anything to the contrary contained elsewhere in this section, the transfer of any or all of the Shares during the Holder's lifetime or on the Holder's death by will or intestacy to (i) the Holder's spouse; (ii) the Holder's lineal descendants or antecedents, siblings, aunts, uncles, cousins, nieces and nephews (including adoptive relationships and step relationships), and their spouses; (iii) the lineal descendants or antecedents, siblings, cousins, aunts, uncles, nieces and nephews of Holder's spouse (including adoptive relationships and step relationships), and their spouses; and (iv) a trust or other similar estate planning vehicle for the benefit of the Holder or any such person, shall be exempt from the provisions of this section; *provided that*, in each such case, the transferee agrees in writing to receive and hold the Shares so transferred subject to all of the provisions of this Agreement, including but not limited to this section, and there shall be no further transfer of such Shares except in accordance with the terms of this section; and *provided further*, that without the prior written consent of the Company, which may be withheld in the sole discretion of the Company, no more than three transfers may be made pursuant to this section, including all transfers by the Holder and all transfers by any transferee.

G. *Termination of Right of First Refusal.* The right of first refusal contained in this section shall terminate as to all Shares acquired hereunder upon the earlier of: (i) the closing date of the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act, and (ii) the closing date of a Change of Control pursuant to which the holders of the outstanding voting securities of the Company receive securities of a class registered pursuant to Section 12 of the Securities Exchange Act of 1934, as amended. For purposes of this Agreement, a "**Change of Control**" means either: (i) the acquisition of the

Company by another entity by means of any transaction or series of related transactions (including, without limitation, any reorganization, merger or consolidation or stock transfer, but excluding any such transaction effected primarily for the purpose of changing the domicile of the Company), unless the Company's stockholders of record immediately prior to such transaction or series of related transactions hold, immediately after such transaction or series of related transactions, at least 50% of the voting power of the surviving or acquiring entity (*provided* that the sale by the Company of its securities for the purposes of raising additional funds shall not constitute a Change of Control hereunder); or (ii) a sale of all or substantially all of the assets of the Company.

5. *General Provisions.*

A. *Choice of Law.* This Agreement shall be governed by the internal substantive laws, but not the choice of law rules, of the State of California.

B. *Integration.* This Agreement, including all exhibits hereto, represents the entire agreement between the parties with respect to the acquisition of the Shares by the Grantee and supersedes and replaces any and all prior written or oral agreements regarding the subject matter of this Agreement including, but not limited to, any representations made during any interviews, relocation discussions or negotiations whether written or oral.

C. *Notices.* Any notice, demand, offer, request or other communication required or permitted to be given by either the Company or the Grantee pursuant to the terms of this Agreement shall be in writing and shall be deemed effectively given the earlier of (i) when received, (ii) when delivered personally, (iii) one business day after being delivered by facsimile (with receipt of appropriate confirmation), (iv) one business day after being deposited with an overnight courier service or (v) four days after being deposited in the U.S. mail, First Class with postage prepaid and return receipt requested, and addressed to the parties at the addresses provided to the Company (which the Company agrees to disclose to the other parties upon request) or such other address as a party may request by notifying the other in writing.

D. *Successors.* Any successor to the Company (whether direct or indirect and whether by purchase, merger, consolidation, liquidation or otherwise) to all or substantially all of the Company's business and/or assets shall assume the obligations under this Agreement and agree expressly to perform the obligations under this Agreement in the same manner and to the same extent as the Company would be required to perform such obligations in the absence of a succession. For all purposes under this Agreement, the term "Company" shall include any successor to the Company's business and/or assets which executes and delivers the assumption agreement described in this section or which becomes bound by the terms of this Agreement by operation of law. Subject to the restrictions on transfer set forth in this Agreement, this Agreement shall be binding upon Grantee and their heirs, executors, administrators, successors and assigns.

E. *Assignment; Transfers.* Except as set forth in this Agreement, this Agreement, and any and all rights, duties and obligations hereunder, shall not be assigned, transferred, delegated or sublicensed by the Grantee without the prior written consent of the Company. Any attempt by the Grantee without such consent to assign, transfer, delegate or

sublicense any rights, duties or obligations that arise under this Agreement shall be void. Except as set forth in this Agreement, any transfers in violation of any restriction upon transfer contained in any section of this Agreement shall be void, unless such restriction is waived in accordance with the terms of this Agreement.

F. *Waiver.* Either party's failure to enforce any provision of this Agreement shall not in any way be construed as a waiver of any such provision, nor prevent that party from thereafter enforcing any other provision of this Agreement. The rights granted both parties hereunder are cumulative and shall not constitute a waiver of either party's right to assert any other legal remedy available to it.

G. *Grantee Investment Representations and Further Documents.* The Grantee agree upon request to execute any further documents or instruments necessary or reasonably desirable in the view of the Company to carry out the purposes or intent of this Agreement, including (but not limited to) the applicable exhibits and attachments to this Agreement.

H. *Severability.* Should any provision of this Agreement be found to be illegal or unenforceable, the other provisions shall nevertheless remain effective and shall remain enforceable to the greatest extent permitted by law.

I. *Rights as Stockholder.* Subject to the terms and conditions of this Agreement, Grantee shall have all of the rights of a stockholder of the Company with respect to the Shares from and after the date that Grantee deliver a fully executed copy of this Agreement (including the applicable exhibits and attachments to this Agreement) and full payment for the Shares to the Company, and until such time as Grantee dispose of the Shares in accordance with this Agreement. Upon such transfer, Grantee shall have no further rights as a holder of the Shares so purchased except (in the case of a transfer to the Company) the right to receive payment for the Shares so purchased in accordance with the provisions of this Agreement, and Grantee shall forthwith cause the certificate(s) evidencing the Shares so purchased to be surrendered to the Company for transfer or cancellation.

J. *Adjustment for Stock Split.* All references to the number of Shares and the purchase price of the Shares in this Agreement shall be adjusted to reflect any stock split, stock dividend or other change in the Shares which may be made after the date of this Agreement.

K. *Reliance on Counsel and Advisors.* Grantee acknowledge that Wilson Sonsini Goodrich & Rosati, Professional Corporation, is representing only the Company in this transaction. Grantee acknowledges that he or she has had the opportunity to review this Agreement, including all attachments hereto, and the transactions contemplated by this Agreement with his or her own legal counsel, tax advisors and other advisors. Grantee are relying solely on his or her own counsel and advisors and not on any statements or representations of the Company or its agents for legal or other advice with respect to this investment or the transactions contemplated by this Agreement.

L. *Counterparts*. This Agreement may be executed in one or more counterparts, each of which will be deemed an original, but all of which together will constitute one and the same agreement. Facsimile copies of signed signature pages shall be binding originals.

(Signature page follows)

The parties represent that they have read this Agreement in its entirety, have had an opportunity to obtain the advice of counsel prior to executing this Agreement and fully understand this Agreement.

COMPANY:

UNITY BIOTECHNOLOGY, INC.

By: _____

Name: Dr. Nathaniel E. David

Title: President and Chief Executive Officer

[Signature Page to Restricted Stock Grant Agreement]

The parties represent that they have read this Agreement in its entirety, have had an opportunity to obtain the advice of counsel prior to executing this Agreement and fully understand this Agreement. The Grantee agrees to notify the Company of any change in its address below.

GRANTEE:

ASCENTAGE PHARMA GROUP CORP. LTD.

Name:

Title:

Address:

11/F, AXA Centre
Gloucester Road,
Wanchai Hong Kong

[Signature Page to Restricted Stock Grant Agreement]

EXHIBIT A
INVESTMENT REPRESENTATION STATEMENT

GRANTEE : ASCENTAGE PHARMA GROUP CORP. LTD.

COMPANY : UNITY BIOTECHNOLOGY, INC.

SECURITY : COMMON STOCK

AMOUNT : [•] SHARES

DATE : [•]

In connection with the acquisition of the above-listed shares, I, each of the undersigned, represent to the Company as follows:

1. ***The Company may rely on these representations.*** I understand that the Company's sale of the shares to me has not been registered under the Securities Act of 1933, as amended (the "**Securities Act**"), because the Company believes, relying in part on my representations in this document, that an exemption from such registration requirement is available for such sale. I understand that the availability of this exemption depends upon the representations I am making to the Company in this document being true and correct.

2. ***I am purchasing for investment.*** I am purchasing the shares solely for investment purposes, and not for further distribution. My entire legal and beneficial ownership interest in the shares is being acquired and shall be held solely for my account, except to the extent I intend to hold the shares jointly with my spouse. I am not a party to, and do not presently intend to enter into, any contract or other arrangement with any other person or entity involving the resale, transfer, grant of participation with respect to or other distribution of any of the shares. My investment intent is not limited to my present intention to hold the shares for the minimum capital gains period specified under any applicable tax law, for a deferred sale, for a specified increase or decrease in the market price of the shares, or for any other fixed period in the future.

3. ***I can protect my own interests.*** I can properly evaluate the merits and risks of an investment in the shares and can protect my own interests in this regard, whether by reason of my own business and financial expertise, the business and financial expertise of certain professional advisors unaffiliated with the Company with whom I have consulted, or my preexisting business or personal relationship with the Company or any of its officers, directors or controlling persons.

4. I am informed about the Company. I am sufficiently aware of the Company's business affairs and financial condition to reach an informed and knowledgeable decision to acquire the shares. I have had opportunity to discuss the plans, operations and financial condition of the Company with its officers, directors or controlling persons, and have received all information I deem appropriate for assessing the risk of an investment in the shares.

5. I recognize my economic risk. I realize that the acquisition of the shares involves a high degree of risk, and that the Company's future prospects are uncertain. I am able to hold the shares indefinitely if required, and am able to bear the loss of my entire investment in the shares.

6. I know that the shares are restricted securities. I understand that the shares are "restricted securities" in that the Company's sale of the shares to me has not been registered under the Securities Act in reliance upon an exemption for non-public offerings. In this regard, I also understand and agree that:

A. I must hold the shares indefinitely, unless any subsequent proposed resale by me is registered under the Securities Act, or unless an exemption from registration is otherwise available (such as Rule 144);

B. the Company is under no obligation to register any subsequent proposed resale of the shares by me; *and*

C. the certificate evidencing the shares will be imprinted with a legend which prohibits the transfer of the shares unless such transfer is registered or such registration is not required in the opinion of counsel for the Company.

7. I am familiar with Rule 144. I am familiar with Rule 144 adopted under the Securities Act, which in some circumstances permits limited public resales of "restricted securities" like the shares acquired from an issuer in a non-public offering. I understand that my ability to sell the shares under Rule 144 in the future is uncertain, and may depend upon, among other things: (i) the availability of certain current public information about the Company; (ii) the resale occurring more than a specified period after my acquisition and full payment (within the meaning of Rule 144) for the shares; and (iii) if I am an affiliate of the Company (A) the sale being made in an unsolicited "broker's transaction", transactions directly with a market maker or riskless principal transactions, as those terms are defined under the Securities Exchange Act of 1934, as amended, (B) the amount of shares being sold during any three-month period not exceeding the specified limitations stated in Rule 144, *and* (C) timely filing of a notice of proposed sale on Form 144, if applicable.

8. I know that Rule 144 may never be available. I understand that the requirements of Rule 144 may never be met, and that the shares may never be saleable under the rule. I further understand that at the time I wish to sell the shares, there may be no public market for the Company's stock upon which to make such a sale, or the current public information requirements of Rule 144 may not be satisfied, either of which may preclude me from selling the shares under Rule 144 even if the relevant holding period had been satisfied.

9. **I know that I am subject to further restrictions on resale.** I understand that in the event Rule 144 is not available to me, any future proposed sale of any of the shares by me will not be possible without prior registration under the Securities Act, compliance with some other registration exemption (which may or may not be available), or *each* of the following: (i) my written notice to the Company containing detailed information regarding the proposed sale, (ii) my providing an opinion of my counsel to the effect that such sale will not require registration, and (iii) the Company notifying me in writing that its counsel concurs in such opinion. I understand that neither the Company nor its counsel is obligated to provide me with any such opinion. I understand that although Rule 144 is not exclusive, the Staff of the SEC has stated that persons proposing to sell private placement securities other than in a registered offering or pursuant to Rule 144 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk.

10. **I know that I may have tax liability due to the uncertain value of the shares.** I understand that the Board of Directors believes its valuation of the shares represents a fair appraisal of their worth, but that it remains possible that, with the benefit of hindsight, the Internal Revenue Service may successfully assert that the value of the shares on the date of my acquisition is substantially greater than the Board's appraisal. I understand that any additional value ascribed to the shares by such an IRS determination will constitute ordinary income to me as of the acquisition date, and that any additional taxes and interest due as a result will be my sole responsibility payable only by me, and that the Company need not and will not reimburse me for that tax liability.

11. **Non-U.S. Investor.** If I am not a United States person, I hereby represents that I am satisfied as to the full observance of the laws of my jurisdiction in connection with any invitation to receive the shares issuable pursuant to this Agreement, or any use of this Agreement, including (i) the legal requirements within my jurisdiction for the acquisition of the shares pursuant to this Agreement, (ii) any foreign exchange restrictions applicable to such receipt or transfer, (iii) any governmental or other consents that may need to be obtained and (iv) the income tax and other tax consequences, if any, that may be relevant to the acquisition, holding, redemption, sale or transfer of such securities. My subscription for, and my continued beneficial ownership of the shares will not violate any applicable securities or other laws of my jurisdiction.

12. **Principal Place of Business.** The address of my principal place of business is set forth on the signature page below.

By signing below, the undersigned acknowledge their agreement with each of the statements contained in this Investment Representation Statement as of the date first set forth above, and their intent for the Company to rely on such statements in issuing the shares to me.

ASCENTAGE PHARMA GROUP CORP. LTD.

Address of Grantee' Principal Place of Business:

11/F AXA Centre
Gloucester Road,
Wanchai Hong Kong

Part B: Capitalization Table

[***]

[Signature Page to Restricted Stock Grant Agreement]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

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EXECUTION COPY
CONFIDENTIAL

APG1252 License Agreement

This APG1252 License Agreement (the “Agreement”) effective as of the 2nd day of February, 2016, (the “Signing Date”) is made by and between **Ascentage Pharma Group Corp. Ltd.**, a Hong Kong corporation (“Ascentage”), with a business address at 11/F, AXA CENTRE, Gloucester Road, Wanchai, Hong Kong, and **Unity Biotechnology, Inc.**, a Delaware corporation (“Unity”), with a business address at 1700 Owens Street, Suite 535, San Francisco, California 95158. Each of Ascentage and Unity shall be a “Party,” and both the “Parties.”

BACKGROUND

A. Unity and Ascentage entered into that certain Compound Library and Option Agreement of even date herewith (the “Library Agreement”), pursuant to which Ascentage has granted to Unity the right to screen Ascentage’s existing collection of BCL-2/BCL-xL inhibitor compounds as well as any additional BCL-2/BCL-xL inhibitor compounds discovered by Ascentage during the term of the Library Agreement, in each case to identify compounds with potential utility in the treatment of age-related conditions other than Oncology Indications; and

B. Ascentage has begun developing a BCL-2/BCL-xL inhibitor known as APG-1252 (as further defined below) and owns or controls certain patents, know-how and other intellectual property relating to APG-1252.

C. Unity desires to acquire from Ascentage a license under the Licensed Intellectual Property to develop APG-1252 in the Field and Territory (each as defined below), and Ascentage is willing to grant Unity such license on the terms and conditions herein, all as set forth below.

NOW, THEREFORE, for and in consideration of the covenants, conditions, and undertakings hereinafter set forth, it is agreed by and between the Parties as follows:

ARTICLE 1 DEFINITIONS

1.1 The following terms have the meanings set forth in the Library Agreement:

- Affiliate
- Ascentage Intellectual Property
- Collaboration Period
- Compounds
- Compound License Agreement(s)
- Greater China
- IND
- Oncology Indications
- Patents
- Technology
- Third Party
- Unity Bcl-2 [***] Product

1.2 “APG-1252” means the chemical compound with the structure identified in Schedule 1.2, [***].

1.3 “APG-1252 Work-a-Like Product” means a Licensed Product under a Compound License Agreement, which product is [***] and is subject to the milestones and royalties described as [***] in Sections 5.2 (Development/Sales Milestones) and 5.3 (Royalties) of the Form of Compound License Agreement attached as Exhibit 3.3.2(a) of the Library Agreement.

1.4 “Fair Market Value” means with respect to a share of Unity common stock, the average price that Unity common stock is publicly trading at for [***] ([***)] days prior to the date in question, or, if the security is not publicly traded, the value of such stock as determined in good faith by Unity’s board of directors in reliance upon Unity’s most recent IRC Section 409A independent valuation of Unity’s common stock that it used for the purposes of granting stock options to its employees.

1.5 “Control” and its correlative terms, “Controlled” or “Controls” shall mean, with respect to any Patent or item of Technology, that a Party or one of its Affiliates owns or possesses rights to such Patent or item of Technology sufficient to grant the access, license or sublicense contemplated in this Agreement without violating the terms of any agreement or other arrangement with any Third Party.

1.6 “Cover” and its correlative terms, “Covers”, “Covered” or “Covering” means (a) with respect to an issued patent, that, in the absence of a license, the use, offer for sale, sale, importation or manufacture of the product in question would infringe one or more claims of such patent or (b) with respect to a pending patent application, that, in the absence of a license, the use, offer for sale, sale, importation or manufacture of the product in question would infringe one or more claims of such patent application, should such claims issue as published.

1.7 “Effective Date” shall mean the date on which the Second Amendment takes effect.

1.8 “Enabling IP” means Patents and/or Technology of a Third Party that Covers or relates to a Royalty-bearing Product and is necessary or useful for the research, development, manufacture, use, sale or import of Royalty-bearing Products, including Patents directed to the composition and manufacture of Licensed Compound, but excluding Patents related to formulation and therapeutic methods.

1.9 “EMA” means the European Medicines Agency and any successor agency.

1.10 “Existing Agreements” means (a) that certain Exclusive License Agreement between Unity and the Mayo Foundation for Medical Education and Research originally entered into by the parties effective June 28th, 2013; (b) that certain Exclusive License Agreement between Unity and the Buck Institute for Research on Aging originally entered into by the parties effective February 3rd, 2014; and (c) that certain Exclusive License Agreement between Unity and the Board of Trustees of the University of Arkansas originally entered into by the parties effective April 28th, 2015.

1.11 “FDA” means the United States Food and Drug Administration and any successor agency.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

1.12 "Field" means the prophylaxis and treatment of, and palliation of symptoms associated with, indications other than Oncology Indications.

1.13 "Generic Product" means a product which (a) contains as its active pharmaceutical ingredient a compound that is (or is substantially the same as) the Licensed Compound or the active pharmaceutical contained in a Unity Bcl-2 [***] Product, and (b) has been placed on the market pursuant to a validly granted marketing authorization.

1.14 "Licensed Compound" means APG-1252.

1.15 "Licensed Intellectual Property" means the Licensed Patents and Licensed Technology.

1.16 "Licensed Patents" means Patents owned or Controlled by Ascentage or its Affiliates during the Term, in each case to the extent Covering the Licensed Compound, a Licensed Product or a Unity Bcl-2 [***] Product.

1.17 "Licensed Product" means a pharmaceutical product containing the Licensed Compound (either alone or with other active pharmaceutical ingredients), in all forms, presentations, formulation and dosage forms.

1.18 "Licensed Technology." means Technology owned or Controlled by Ascentage or its Affiliates during the Term, in each case to the extent such Technology is necessary or reasonably useful for the development, manufacture or commercialization of the Licensed Compound, a Licensed Product or a Unity Bcl-2 [***] Product.

1.19 "Marketing Approval Application" or "MAA" means a New Drug Application (or its equivalent), as defined in the U.S. Food, Drug and Cosmetic Act and the regulations promulgated thereunder, or any corresponding or similar application, registration or certification in any country.

1.20 "Net Sales" means the gross amount invoiced to non-Affiliate Third Parties on sales of Royalty-bearing Products by Unity or its Affiliates or Third Party Sublicensees, less the actual amounts incurred, allowed, or paid for the following items (if not previously deducted from the amount invoiced and provided that such deductions are calculated in accordance with generally accepted accounting principles of the United States of America ("GAAP") on a consistent basis): (a) trade, cash, and quantity discounts; (b) amounts for claims, allowances or credits for returns, rejections or recalls; (c) freight, shipping and insurance charges allocable to such Royalty-bearing Products; (d) sales taxes, duties and other governmental charges (including value added tax) on particular sales, but excluding what is commonly known as income taxes; (e) government mandated rebates; (f) contracted rebates; and (g) a provision for uncollectible accounts; in each case as determined from books and records of the selling party maintained in accordance with GAAP, as consistently applied by such selling party. In the event that Unity grants a sublicense to a Third Party Sublicensee hereunder, and receives payments based upon such Third Party Sublicensee's sales of Royalty-bearing Product, Unity may, with Ascentage's consent, which consent shall not be unreasonably withheld or delayed, substitute the definition of "Net Sales," used by such Third Party Sublicensee to calculate its payments to Unity in place of the foregoing definition of "Net Sales" for purposes of calculating royalties payable to Ascentage on such Third Party Sublicensee's sales.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

1.21 "Phase I Clinical Trial" means a human clinical trial, the principal purpose of which is preliminary determination of safety of a drug in healthy individuals or patients, that would satisfy the requirements of 21 C.F.R. §312.21(a).

1.22 "Phase II Clinical Trial" means a clinical trial of a drug conducted on a limited number of patients for the purpose of preliminary evaluation of clinical efficacy and safety of such drug, and/or to obtain an indication of the dosage regimen required, in each case that would satisfy the requirements of 21 C.F.R. 312.21(b).

1.23 "Phase III Clinical Trial" means a pivotal human clinical trial intended to gather additional information regarding the safety and efficacy of the drug in patients with the disease being studied, which clinical study is designed to be of a size and statistical power sufficient to support the filing of an MAA and that would satisfy the requirements of 21 C.F.R. 312.21(c).

1.24 "Royalty-bearing Product" means a Licensed Product or a Unity Bcl-2 [***] Product.

1.25 "Royalty-bearing Product-Specific Patents" means those Licensed Patents that [***] the Licensed Compound, a Licensed Product or a Unity Bcl-2 [***] Product and [***].

1.26 "Territory" means the entire world excluding Greater China.

1.27 "Third Party Sublicensee" means any Third Party to which Unity licenses the right to commercialize any Royalty-bearing Product. For the avoidance of doubt, "Third Party Sublicensee" shall not include Third Party distributors, service providers, vendors and suppliers that do not have the right to market or promote the Royalty-bearing Product.

1.28 "UM License Agreement" means that certain license agreement entered into by Ascentage and the Regents of the University of Michigan ("UM") effective as of December 1, 2010, as amended by all amendments to such license agreement existing as of the Effective Date.

1.29 "Unity Bcl-2 [***] Product" means any [***] product for [***], wherein the [***], and in each case that (a) is developed by Unity during the Collaboration Period, (b) is not an APG-1252 Work-a-Like Product, and (c) for which an IND is filed prior to the later of the [***] anniversary of the Effective Date or the [***] anniversary of the expiration or termination of the Library Agreement. Notwithstanding anything to the contrary in this Agreement, any compound that was designed ([***]) or [***] synthesized [***] shall not be considered a Unity Bcl-2 [***] Product without Unity's express written consent. [***] In addition, Unity agrees that upon request it will [***].

1.30 "Valid Claim" means a claim contained in an issued Patent within the Licensed Patents in any country that (a) has not expired; (b) has not been disclaimed; (c) has not been cancelled or superseded, or if cancelled or superseded, has been reinstated; and (d) has not been revoked, held invalid, or otherwise declared unenforceable or not allowable by a tribunal or patent authority of competent jurisdiction over such claim in such country from which no further appeal has or may be taken.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

**ARTICLE 2
LICENSES**

2.1 Licenses.

2.1.1 Development Licenses. Subject to the terms and conditions of this Agreement, Ascentage hereby grants to Unity a royalty-free, exclusive license in the Field and Territory, with the right to grant sublicenses as provided in Section 2.2, under the Licensed Intellectual Property to (a) research, develop and seek and obtain marketing approval for the Licensed Compound and Licensed Products using Licensed Compound and/or Licensed Products supplied by or on behalf of Ascentage and (b) research, make, develop and seek and obtain marketing approval for Unity Bcl-2 [***] Products; in each case solely in the Field and Territory, and to have any of the foregoing performed on its behalf by a Third Party; and

2.1.2 Commercialization Licenses. Subject to the terms and conditions of this Agreement, Ascentage hereby grants to Unity a royalty-bearing, exclusive license in the Field and Territory, with the right to grant sublicenses as provided in Section 2.2, under the Licensed Intellectual Property: (a) to use the Licensed Compound supplied by or on behalf of Ascentage to make or have made the Licensed Products; (b) to use, offer for sale, sell, import, export, market, promote and distribute Licensed Compound and Licensed Products, and (c) to make, use, offer for sale, sell, import, export, market, promote and distribute Unity Bcl-2 [***] Products; in each case, solely for use in the Field and Territory, and to have any of the foregoing performed on its behalf by a Third Party. It is understood and agreed that the licenses set forth in this Section 2.1.2 exclude the right to make or have made the Licensed Compound.

2.2 Sublicenses. Unity may grant and authorize sublicenses within the scope of the license granted to Unity pursuant to this Agreement, provided that for clarity, Unity shall remain responsible for all milestone and other payments due to Ascentage under this Agreement based on the activities of Unity's sublicensees.

2.3 Third Party Intellectual Property. If after the Effective Date, Ascentage acquires or licenses from a Third Party subject matter that would fall within the Licensed Intellectual Property ("Third Party Intellectual Property") that is subject to any payment obligation to the Third Party, then Ascentage shall so notify Unity and Unity shall inform Ascentage if it wishes such subject matter to be included within the Licensed Intellectual Property. If Unity notifies Ascentage that it does wish such subject matter to be so included, the rights granted to Unity hereunder with respect to such Third Party Intellectual Property shall be subject to Unity promptly reimbursing Ascentage for [***] and Unity shall reimburse Ascentage for [***]. Upon request by Unity, Ascentage shall disclose to Unity a written description of such payment obligations. Notwithstanding the foregoing, Unity shall have the right to treat amounts paid to Ascentage as reimbursements for payments for Enabling IP for purposes of Section 5.5.

2.4 No Implied Licenses. Nothing herein shall be construed as granting Unity, by implication, estoppel or otherwise, any license or other right (a) to any intellectual property of Ascentage other than the Licensed Intellectual Property (b) to commercialize Licensed Products outside of the Field and Territory (c) not relating to the Licensed Compound, Licensed Products and Unity Bcl-2 [***] Products or (d) any right or license other than those expressly granted herein.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

2.5 [***].

2.6 Exclusivity/[***].

2.6.1 Exclusivity.

(a) No Development or Commercialization of Licensed Compound in the Field. Ascentage hereby covenants that except as expressly permitted under any future agreement that the Parties may enter into pursuant to Article 8 below pertaining to the China JVCO, Ascentage shall not: (a) research, develop, use or commercialize, and shall not authorize any Affiliate or other Third Party to research, develop, use or commercialize, the Licensed Compound (or any Licensed Product) in the Field, and (b) manufacture, or authorize any Third Party to manufacture, the Licensed Compound or any Licensed Product for use in the Field, other than for supply to Unity in accordance with the terms of the Supply Agreement to be negotiated pursuant to Article 4 below.

(b) No Development or Commercialization of Licensed Compounds. Ascentage hereby covenants that except as expressly permitted under any future agreement that the Parties may enter into pursuant to Article 8 below pertaining to the China JVCO, Ascentage shall not research, develop, manufacture, use or commercialize, and shall not authorize any Affiliate or other Third Party to research, develop, manufacture, use or commercialize, any Unity Bcl-2 [***] Products.

(c) Notwithstanding anything to the contrary, Ascentage shall be permitted to develop any products containing the Licensed Compound for Oncology Indications independently.

2.6.2 [***] Licensed Products. Within [***] of the effective date of the Library Agreement the Parties will [***] to [***]. The [***] is [***]. In addition, the [***] to [***]. Ascentage will appoint [***] and Unity will appoint [***] to [***].

2.7 [***]. The Parties agree that within [***] of the Effective Date of this Agreement they will put in place a procedure pursuant to which [***] shall [***] that [***] to [***].

ARTICLE 3 DUE DILIGENCE

3.1 General. Unity shall use commercially reasonable efforts to develop and obtain marketing approval for at least one Royalty Product or APG-1252 Work-a-Like Product (collectively, “[***] Product”), and thereafter shall use commercially reasonable efforts to launch and commercialize each such [***] Product and to fulfil the market demand therefor.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

3.2 Diligence Milestones. Without limiting the it's general diligence obligations under Section 3.1 above, Unity agrees that it shall achieve the following diligence milestones with respect to a [***] Product by the deadlines specified below:

Milestone	Time Period
1. [***]	Within [***] ([***)] [***] of the Effective Date
2. [***]	Within [***] ([***)] [***] of the Effective Date
3. [***]	Within [***] ([***)] [***] of the Effective Date
4. [***]	Within [***] ([***)] [***] of the Effective Date

If Unity is unable to meet [***], as applicable, by the specified deadline, Unity shall none-the-less be deemed to be in compliance with its diligence obligations hereunder so long as it [***].

ARTICLE 4 MANUFACTURE AND SUPPLY

4.1 Within [***] of the effective date of the Library Agreement, the Parties will negotiate and agree upon the terms and conditions pursuant to which Ascentage (itself or through one or more Third Party contract manufacturers) shall manufacture and supply Unity, its Affiliates and their Third Party Sublicensees with (a) Licensed Product for clinical use, and (b) Licensed Compound for commercial use (the "Supply Agreement"). Ascentage will appoint [***] and Unity will appoint [***] to negotiate such Supply Agreement on their respective behalf. For clarity it is acknowledged that [***].

ARTICLE 5 PAYMENTS

5.1 Equity Grants.

5.1.1 Upfront Fee. As partial consideration for the rights and licenses granted to Unity under this Agreement, Unity shall issue to Ascentage, subject to Ascentage's execution and delivery to Unity of a Stock Issuance Agreement in substantially the form attached hereto as Schedule 5.1 (such form of agreement, the "Stock Agreement"), One Million Five Hundred Seventy Three Thousand Three Hundred Forty (1,573,340) shares of Unity common stock; such shares to be issued to Ascentage within [***] ([***)] days of the Effective Date.

5.1.2 [***]. Upon the [***], Unity shall issue to Ascentage Three Hundred Ninety Three Thousand Three Hundred Thirty Five (393,335) shares of Unity common stock; such shares to be issued to Ascentage pursuant to the Stock Agreement within [***] ([***)] days of date that [***] occurs. For clarity, [***].

5.1.3 [***]. Upon the [***], Unity shall issue to Ascentage the following number of shares of Unity common stock based on how long after the Effective Date such [***]; such shares to be issued to Ascentage pursuant to the Stock Agreement within [***] ([***)] days of date that such [***] occurs:

- (a) [***] ([***)] shares of Unity common stock if such [***] occurs within [***] ([***)] [***] of the Effective Date.

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(b) [***] ([***]) shares of Unity common stock if such [***] occurs more than [***] ([***]) [***] after the Effective Date but less than [***] ([***]) [***] after the Effective Date.

(c) [***] ([***]) shares of Unity common stock if such [***] occurs more than [***] ([***]) [***] after the Effective Date.

5.1.4 Equity Cap. Notwithstanding anything in the contrary in this Agreement, the Library Agreement or any Compound License Agreement(s), the maximum cumulative aggregate number of shares of Unity common stock that Ascentage is eligible to receive under Sections 6.1 and 6.2 of the Library Agreement, Section 5.1 of any Compound License Agreement(s) and this Section 5.1 is:

(a) [***] ([***]) shares of Unity common stock if only one Licensed Product is developed; and

(b) Three Million Nine Hundred Thirty Three Thousand Three Hundred and Fifty (3,933,350) shares of Unity common stock if two or more Licensed Products is developed.

5.2 Development/Sales Milestones. In partial consideration of the rights and licenses granted herein to Unity, Unity shall pay Ascentage the following milestone payments:

5.2.1 Licensed Products. Within [***] ([***]) days after the first achievement by Unity (or any of its Affiliates or Third Party Sublicensees) of each of the following milestones with respect to a Licensed Product, Unity shall pay Ascentage the corresponding milestone payment set forth below, in accordance with the payment provisions of Article 6 below:

<u>Milestone Event</u>	<u>Milestone Payment</u>
1. [***]:	\$ [***]
2. [***]:	\$ [***]
3. [***]:	\$ [***]
4. [***]	\$ [***]
5. [***]	\$ [***]
Total per Licensed Product	\$ [***]

5.2.2 Unity Bcl-2 [***] Products. Within [***] ([***]) days after the first achievement by Unity (or any of its Affiliates or Third Party Sublicensees) of each of the following milestones with respect to a Unity Bcl-2 [***] Product, Unity shall pay Ascentage the corresponding milestone payment set forth below, in accordance with the payment provisions of Article 6 below:

<u>Milestone Event</u>	<u>Milestone Payment</u>
1. [***]:	\$ [***]
2. [***]:	\$ [***]
3. [***]:	\$ [***]
4. [***]	\$ [***]
5. [***]	\$ [***]
Total per Unity Bcl-2 [***] Product	\$ [***]

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5.2.3 Certain Additional Terms.

(a) For clarity, all forms, presentations, formulation and dosage forms of a Licensed Product or Unity Bcl-2 [***] Product shall be considered one and the same Licensed Product or Unity Bcl-2 [***] Product (as applicable) for purposes of this Section 5.2.

(b) If Unity begins development of one Licensed Product or Unity Bcl-2 [***] Product and a milestone payment is made under this Section 5.2, and then Unity terminates development of such product and begins development of a second Licensed Product or Unity Bcl-2 [***] Product, the milestone which was already paid under this Section 5.2 for the abandoned product will not be repeated, but the remaining milestone payments hereunder will be due as the second Licensed Product or Unity Bcl-2 [***] Product (as applicable) advances;

(c) In its sole discretion, Unity may elect in lieu of the payment of the milestone payments owing to Ascentage under this Section 5.2, to grant to Ascentage that number of shares of Unity common stock of equivalent value (based on the Fair Market Value of such Unity common stock at the time of such grant).

5.3 Royalties. In partial consideration of the licenses granted herein to Unity, Unity shall pay to Ascentage a running royalty equal to the percentage set forth below on the Net Sales of each Royalty-bearing Product based on whether such Royalty-bearing Product is a Licensed Product or Unity Bcl-2 [***] Product, subject to any adjustments set forth in Sections 5.5 and 5.6, and in accordance with the payment provisions of Article 6 below.

5.3.1 Licensed Products.

<u>Annual Net Sales of Licensed Product</u>	<u>Applicable Royalty Rate</u>
Portion of worldwide annual Net Sales of the Licensed Product less than or equal to [***] Dollars (US\$[***])	[***]%
Portion of worldwide annual Net Sales of the Licensed Product over [***] Dollars (US\$[***])	[***]%

5.3.2 Unity Bcl-2 [***] Products.

<u>Annual Net Sales of Licensed Product</u>	<u>Applicable Royalty Rate</u>
Portion of worldwide annual Net Sales of the Licensed Product less than or equal to [***] Dollars (US\$[***])	[***]%
Portion of worldwide annual Net Sales of the Licensed Product over [***] Dollars (US\$[***])	[***]%

5.4 Royalty Term. Unity's obligation to pay royalties on Net Sales of Royalty-bearing Products under this Agreement shall continue on a country-by-country and Royalty-bearing Product-by-Royalty-bearing Product basis until the later of (a) abandonment or expiration of the last Valid Claim that claims the [***] of the Licensed Compound (or the [***] contained in the Unity Bcl-2 [***] Product) in such country, (b) the date of expiry of any applicable regulatory, pediatric, orphan drug or data exclusivity obtained for such Royalty-bearing Product in such country, or (c) ten (10) years after the first commercial sale of the Royalty-bearing Product by or under the authority of Unity in any country in the Territory.

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5.5 Royalty Stacking. Unity shall be entitled to deduct from the amounts owing to Ascentage under Sections 5.2 and 5.3 above [***] percent ([***]%) of any royalties or other payments made to Third Parties for Enabling IP, provided that (a) the total aggregate amount payable to Ascentage under Sections 5.2 and 5.3 in any [***] may not be reduced to less than [***] percent ([***]%) of the amounts that would otherwise be due Ascentage in such [***], and (b) Unity shall not be entitled to deduct any royalties or other payments made under the Existing Agreements. If, in any [***], Unity is not able to fully recover its [***] percent ([***]%) portion of the payments due to a Third Party, it shall be entitled to carry forward such right of off-set to future [***] with respect to the excess amount

5.6 Generic Products. If at any time during the term of this Agreement a Generic Product enters the market in any country and has for a period of at least [***] ([***]) consecutive [***] a market share in such country of at least [***] percent ([***]%) of the then combined unit volume of the corresponding Royalty-bearing Product (i.e., the Royalty-bearing Product containing the same active pharmaceutical ingredient(s) as are present in the Generic Product) and such Generic Product, then Unity's obligation to pay royalties to Ascentage on Net Sales of such Royalty-bearing Product in such country shall be reduced to [***] percent ([***]%) of the amounts that would otherwise be due Ascentage under Section 5.3 in such calendar quarter.

5.7 Maximum Reduction to Royalties. Notwithstanding anything to the contrary in this Article 5, in no event shall the royalties owing to Ascentage with respect to Net Sales of a Royalty-bearing Product in any country be reduced by cumulative operation of Sections 5.5 and 5.6 to less than [***] percent ([***]%) of the amounts that would otherwise be due Ascentage under Section 5.3 in such calendar quarter.

5.8 Combination Products. In the event that a Royalty-bearing Product is sold for a single price in combination with another therapeutically active pharmaceutical ingredient, or other product or service, for which no royalty would be due hereunder if sold separately, Net Sales from such combination sales, for purposes of calculating the applicable royalty rate and the applicable royalty due under Section 5.3 shall be calculated by multiplying the Net Sales of the combination product by the fraction $A/(A + B)$, where A is the average gross selling price during the previous [***] of the Royalty-bearing Product sold separately and B is the gross selling price during the previous [***] of the therapeutically active ingredient, product or service. In the event that separate sales of the Royalty-bearing Product or the additional therapeutically active ingredient, product or service were not made during the previous [***], then the Net Sales shall be reasonably allocated between such Royalty-bearing Product and such other active ingredient, product or service as agreed upon by the Parties, or failing agreement, determined in accordance with Section 13.1 (Dispute Resolution) below.

5.9 Unity's Covenant. Unity hereby agrees that any shares of common stock issued to Ascentage will not be diluted unless diluted in good faith by Unity on a proportionate basis to the other shares of common stock of Unity outstanding at the time of any such dilution, and subject to the anti-dilution protections as set forth in Unity's certificate of incorporation, as may be amended

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from time to time in good faith; provided further, that Unity shall not take actions that specifically treat Ascentage differently from other holders of common stock, or issue any capital stock in a manner which is intended to circumvent this covenant. The shares of common stock issued to Ascentage shall be duly adjusted for any bonus issue, share split, consolidation, subdivision, reclassification, recapitalization or similar arrangement of Unity, in each case in accordance with, and as expressly contemplated by, Unity's certificate of incorporation, as may be amended from time to time in good faith.

ARTICLE 6
ACCOUNTING; RECORDS; METHOD OF PAYMENT

6.1 Royalty Reports; Payments, Invoices. After the first sale of a Royalty-bearing Product on which royalties are payable by Unity hereunder, Unity shall make quarterly written reports to Ascentage within [***] ([***)] days after the end of each calendar quarter, stating in each such report the number, description, and aggregate Net Sales of Royalty-bearing Product sold during the calendar quarter upon which a royalty is payable under Article 5 above. Concurrently with the making of such reports, Unity shall pay to Ascentage all amounts payable pursuant to Article 5 above, in accordance with the payment provisions of Section 6.3.

6.2 Records; Inspection. During the term of this Agreement and for a period of [***] ([***)] years thereafter, Unity and its Affiliates shall keep complete, true and accurate books of account and records for the purpose of determining the amounts payable to Ascentage under this Agreement. Ascentage shall have the right to cause an independent, certified public accountant reasonably acceptable to Unity to audit such records to confirm gross sales, Net Sales and royalty payments for a period covering not more than the preceding [***] ([***)] years. Unity agrees to either: (a) require each of its Third Party Sublicensees to maintain similar books and records and to open such records for inspection by an independent, certified public accountant reasonably satisfactory to such Third Party Sublicensee, on behalf of, and as required by, Ascentage for the purpose of verifying payments hereunder, or (b) obtain such audits rights from the Third Party Sublicensee for itself and exercise such audit rights on behalf of Ascentage upon Ascentage's request and disclose the results thereof to Ascentage. All such inspections may be made no more than once each calendar year at reasonable times and on reasonable notice. No accounting period of Unity or its Affiliate or Third Party Sublicensee shall be subject to audit more than one time hereunder. Such independent, certified public accountant will be obliged to execute a reasonable confidentiality agreement prior to commencing any such inspection. The results of any inspection hereunder shall be provided to both Parties, and Unity shall pay any underpayment to Ascentage within [***] ([***)] days. Inspections conducted under this Section 6.2 shall be at the expense of Ascentage (and Ascentage will reimburse Unity's reasonable out-of-pocket costs of those inspections conducted by Unity at Ascentage's request under (b) above), unless a variation or error producing an increase exceeding [***] percent ([***)%] of the amount stated for any period is established in the course of any such inspection, whereupon all costs of such audit of such period will be paid by Unity.

6.3 Payment Method. All payments due hereunder shall be made in U.S. dollars, and shall be made by bank wire transfer in immediately available funds to an account designated by Ascentage in a written notice to Unity. If any currency conversion shall be required in connection with the payment of royalties hereunder, such conversion shall be made by using the exchange rates used by Unity in calculating Unity's own revenues for financial reporting purposes.

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6.4 Late Payments. Any payments due from Unity that are not paid on the date such payments are due under this Agreement shall bear interest at [***] ([***]%) above the then prevailing US Federal Funds Target Rate (Bloomberg page: FDTR <Index>) per annum calculated on a daily basis and payable for the period from the date payment is due until the date payment is actually made. This Section 6.4 shall in no way limit any other remedies available to any Party.

ARTICLE 7 PATENT PROSECUTION AND ENFORCEMENT

7.1 Prosecution of Patents within the Licensed Intellectual Property.

7.1.1 General.

(a) Except as set forth in Section 7.1.1(b) or Section 7.1.1(c) hereof, Ascentage shall have the sole right to control the preparation, filing, prosecution and maintenance of all Licensed Patents using patent counsel of its choice.

(b) Unity shall have the first right, but not the obligation, to prepare, file, prosecute and maintain Royalty-bearing Product-Specific Patents. Unity shall (i) keep Ascentage reasonably informed as to its filing and prosecution strategy for Royalty-bearing Product-Specific Patents and the filing, prosecution and maintenance of Royalty-bearing Product-Specific Patents, (ii) provide Ascentage with a reasonable opportunity to review drafts of proposed patent office submissions with respect to Royalty-bearing Product-Specific Patents; and (iii) consider in good faith the requests and suggestions of Ascentage with respect to strategies for filing and prosecuting such Royalty-bearing Product-Specific Patents. In the event that Unity desires to abandon or decline further responsibility for any such Royalty-bearing Product-Specific Patent, Unity shall provide reasonable prior written notice to Ascentage of such intention to abandon or decline responsibility, but in no case later than [***] ([***]) days prior to any required action relating to the filing, prosecution or maintenance of such Royalty-bearing Product-Specific Patent, and Ascentage shall have the right, at its discretion, to assume such responsibility.

(c) With respect to any Licensed Patent (other than a Royalty-bearing Product-Specific Patent) that claims the Licensed Compound, a Licensed Product or Unity Bcl-2 [***] Product, Ascentage shall have the first right, but not the obligation, to prepare, file, prosecute and maintain such Licensed Patent and shall (i) keep Unity reasonably informed as to its filing and prosecution strategy for such Licensed Patent and the filing, prosecution and maintenance of such Licensed Patent, (ii) provide Unity with a reasonable opportunity to review drafts of proposed patent office submissions with respect to such Licensed Patent; and (iii) follow the directions given by Unity with respect to filing and prosecuting such Licensed Patents, unless [***], in which case [***] and [***]. In the event that Ascentage desires to abandon or decline further responsibility for any Licensed Patent, Ascentage shall provide Unity [***] notice and the opportunity to assume responsibility for such Licensed Patent.

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7.1.2 For purposes of this Article 7, “prosecution and maintenance” of patents and patent applications shall be deemed to include, without limitation, the conduct of interferences or oppositions, and/or requests for re-examinations, reissues or extensions of patent terms.

7.2 Enforcement of Licensed Patents. If either Party determines that a Third Party is making, using or selling a product that may infringe any Licensed Patent, that Party shall notify the other Party in writing.

7.2.1 Infringement by a Competitive Product.

(a) With respect to any such infringing activity that involves the manufacture, use or sale by a Third Party of any product that [***] (“Competitive Product”), Unity shall have the first right, at its sole option, to bring suit to enforce any Licensed Patent, and/or to defend any declaratory judgment action with respect thereto (“Enforcement Action”); provided, however, that Unity shall keep Ascentage reasonably informed as to the defense and/or settlement of any such Enforcement Action. Ascentage shall have the right to participate in any such Enforcement Action with counsel of its own choice at its own expense. All recoveries received by Unity from an Enforcement Action shall be first applied to reimburse Unity’s and then Ascentage’s unreimbursed expenses, including without limitation, reasonable attorney’s fees and court costs. Any remainder shall, to the extent the same pertains to an infringing activity that involves the manufacture, use or sale by a Third Party of any Competitive Product, be treated as Net Sales.

(b) In the event Unity elects not to initiate an Enforcement Action with respect to any commercially significant infringing activity that involves the manufacture, use or sale by a Third Party of any Competitive Product within [***] ([***)] days of a request by Ascentage to do so ([***]), Ascentage may initiate such action at its expense. Unity shall have the right to participate in any such action with counsel of its own choice at its own expense. All recoveries received by Ascentage from an Enforcement Action shall be first applied to reimburse Ascentage’s and then Unity’s unreimbursed expenses, including without limitation, reasonable attorney’s fees and court costs. Any remainder shall, to the extent the same pertains to an infringement of the Licensed Patents, be split [***].

7.2.2 Other Instances of Infringement. With respect to any such infringing activity that does not involve the manufacture, use or sale by a Third Party of a Competitive Product, Ascentage shall have the sole right, at its sole option, to bring suit to enforce any Licensed Patent, and/or to defend any declaratory judgment action with respect thereto and to retain all recoveries received by Ascentage in connection therewith.

7.3 Infringement Claims Against Unity. If the production, sale or use of a Royalty-bearing Product pursuant to this Agreement results in any claim, suit or proceeding alleging patent infringement against Unity (or its Affiliates or sublicensees), Unity shall promptly notify Ascentage thereof in writing setting forth the facts of such claim in reasonable detail. As between the Parties, Unity will be entitled to control the defense in any such action(s). Unity agrees to keep Ascentage reasonably informed of all material developments in connection with any such claim, suit or proceeding as it relates to the Licensed Intellectual Property. Notwithstanding the above, Unity shall not admit the invalidity of any Licensed Patent without written consent from Ascentage.

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7.4 Cooperation. In any legal action undertaken by a Party pursuant to Sections 7.2 or 7.3 of this Agreement (the Party bringing or defending such legal action, the “Enforcing Party”), the non-Enforcing Party shall cooperate fully with the Enforcing Party, including without limitation by joining as a party plaintiff if necessary for legal standing and executing such documents as the Enforcing Party may reasonably request. Upon the request of, and at the expense of, the Enforcing Party, the non-Enforcing Party shall make available at reasonable times and under appropriate conditions all relevant personnel, records, papers, information, samples, specimens and other similar materials in its possession.

7.5 No Implied Obligations. Except as expressly provided in this Article 7, neither Party has any obligation to bring or prosecute actions or suits against any Third Party for patent infringement.

7.6 UM License Agreement. Notwithstanding the foregoing provisions of this Article 7, with respect to the Licensed Patents subject of the UM License Agreement, Unity’s rights under this Article 7 shall be limited to the extent of Ascentage’s rights to prosecute and enforce such Licensed Patents under the UM License Agreement, provided that (a) with respect to Royalty-bearing Product-Specific Patents that have been in-licensed from UM, to the extent the UM License Agreement will not permit Unity to control the prosecution of such patents, Ascentage agrees to (i) share with Unity the information Ascentage receives from UM under Section 7.2 of the UM License Agreement with respect to such patents, (ii) provide Unity with a reasonable opportunity to review and comment upon such information; and (iii) pass along to UM Unity’s comments and requested actions, and (b) Ascentage shall at Unity’s request and expense cooperate with Unity in order to allow Unity to exercise on Ascentage’s behalf the enforcement rights granted to Ascentage under Section 8.1 of the UM License Agreement, in each case as permitted by the UM License Agreement.

OPTION FOR CHINA JOINT VENTURE

7.6 Option for China JVCO. Unity shall grant to Ascentage an option to commercialize one or more Royalty-bearing Products for use in the Field in Greater China jointly with Unity through a joint venture entity (“China JVCO”) to be established in accordance with Section 8.4 of the Library Agreement (“JVCO Option”). The process for exercise of the JVCO Option shall be agreed upon by [***] and [***] at [***].

7.7 Limitation of Obligations; Certain Covenants

8.2.1. Notwithstanding anything to the contrary, nothing in this Agreement shall be deemed to have granted Unity or any of its sublicensees the right to develop, manufacture, distribute, sell or otherwise commercialize the Royalty-bearing Products in the Greater China.

8.2.2 Ascentage hereby covenants that it shall not develop, manufacture, distribute, sell or otherwise commercialize (a) Unity Bcl-2 [***] Products or (b) the Licensed Compound (including any Licensed Products containing the Licensed Compound) for use in the Field in the Greater China except through the China JVCO. In the event of a breach by Ascentage of its obligations under this Section 8.2.2, the [***] and [***], shall [***].

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8.2.3 Unity and Ascentage hereby covenant that they shall cooperate with respect to the establishment of the China JVCO, including without limitation by (a) initiating negotiation of the form agreements relating to the JVCO within [***] of the Effective Date, (b) using commercially reasonable efforts to reach agreement on such form agreements within [***] ([***]) [***] of the Effective Date, including ensuring that [***] and [***] devote at least [***] to such negotiations until such form agreements are agreed upon, and (c) signing the agreements for establishment of the China JVCO agreed upon by [***] and [***].

CONFIDENTIALITY

7.8 Confidential Information. Except as otherwise expressly provided herein, the parties agree that the receiving party shall not, except as expressly provided in this Article 9, disclose to any Third Party or use for any purpose any information which is disclosed to it by the other party, whether orally or in writing, and identified as confidential ("Confidential Information"), except to the extent that it can be established by the receiving party by competent proof that such information:

(a) Was already known to the receiving party, other than under an obligation of confidentiality, at the time of disclosure;

(b) Was generally available to the public or otherwise part of the public domain at the time of its disclosure to the receiving party;

(c) Became generally available to the public or otherwise part of the public domain after its disclosure and other than through any act or omission of the receiving party in breach of this Agreement;

(d) Was independently developed by the receiving party without reference to information provided by the disclosing party as demonstrated by documented evidence prepared contemporaneously with such independent development; or

(e) Was disclosed to the receiving party, other than under an obligation of confidentiality, by a Third Party who had no obligation to the disclosing party not to disclose such information to others.

7.9 Permitted Use and Disclosures. Each party hereto may use or disclose Confidential Information of the other party to the extent such use or disclosure is reasonably necessary in the following instances: (a) exercising the rights granted to it hereunder (including, in the case of Unity, developing, commercializing and/or sublicensing of Royalty-bearing Products) or in carrying out its obligations hereunder; (b) filing or prosecuting Patents as permitted by this Agreement; (c) prosecuting or defending litigation; and (d) complying with applicable court orders or governmental regulations. Notwithstanding the foregoing, in the event a party is required to make a disclosure of the other party's Confidential Information pursuant to clause (c) or (d) of this Section 9.2, it will, except where impracticable, give reasonable advance notice to the disclosing

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party of such disclosure and use efforts to secure confidential treatment of such information at least as diligent as such party would use to protect its own confidential information, but in no event less than reasonable efforts. In addition, Unity shall have the right to disclose Confidential Information regarding the Licensed Compound or Licensed Products to Third Parties in connection with due diligence or similar investigations, to potential Third Party investors, and others on a need to know basis, in each case under terms of confidentiality that are appropriate for the circumstances, or to the extent required by law.

7.10 Nondisclosure of Terms. Each of the parties hereto agrees not to disclose the terms of this Agreement to any Third Party without the prior written consent of the other party hereto, which consent shall not be unreasonably withheld; provided that a party may disclose the terms of this Agreement without such consent to such party's attorneys and advisors, to Third Parties in connection with due diligence or similar investigations, to potential Third Party investors, and others on a need to know basis, in each case under terms of confidentiality that are appropriate for the circumstances, or to the extent required by law.

7.11 Public Announcement. Unity may, in its discretion, issue a press release announcing the formation of this Agreement, which shall be substantially in a form approved by Ascentage prior to execution of the Agreement. Except with respect to such initial release or as otherwise required by law, neither party shall issue an additional press release or public announcement relating to this Agreement without the prior written approval of the other party, which shall not be withheld unreasonably. Either party may refer to the license granted under this Agreement in promotional and other communications with prospective customers and investors, subject to the prior written approval of the other party of the form, substance and intended use of such reference, and provided that such disclosure shall not include any technical details or any financial terms of the license. For purposes of clarification, after a party has obtained the other party's written approval of the form, substance and intended use of a particular reference, no further approval of the other party will be required for inclusion of the same reference in future communications that are intended for the same use.

ARTICLE 8 INDEMNIFICATION

8.1 Unity. Unity agrees to indemnify and defend Ascentage and its directors, officers, employees, agents and their respective successors, heirs and assigns (the "Ascentage Indemnitees") against any losses, costs, claims, damages, liabilities or expense (including reasonable attorneys' and professional fees and other expenses of litigation) (collectively, "Liabilities") arising, directly or indirectly out of or in connection with Third Party claims, suits, actions, demands or judgments, to the extent (a) relating to Licensed Products developed, manufactured, used, sold or otherwise distributed by or on behalf of Unity, its Affiliates, sublicensees or other designees (excluding Ascentage, its Affiliates and licensees) including, without limitation, product liability and patent infringement claims, or (b) resulting from a breach by Unity of its representations and warranties under this Agreement, except, in each case, to the extent such Liabilities result from the negligence or intentional misconduct of Ascentage or Ascentage's breach of its representations and warranties under this Agreement or the Supply Agreement to be negotiated pursuant to Article 4 above.

8.2 Ascentage. Ascentage agrees to indemnify and defend Unity and its directors, officers, employees, agents and their respective heirs and assigns (the "Unity Indemnitees") against any Liabilities arising, directly or indirectly out of or in connection with Third Party claims, suits, actions, demands or judgments, to the extent resulting from a breach by Ascentage of its representations and warranties under this Agreement or the Supply Agreement to be negotiated pursuant to Article 4 above, except, in each case, to the extent such Liabilities result from the negligence or intentional misconduct of Unity or Unity's breach of its representations and warranties under this Agreement.

8.3 Procedure. In the event that any party intends to claim indemnification under this Article 10 (each such party, an "Indemnitee") it shall promptly notify the other Party in writing of such alleged Liability. The indemnifying Party shall have the right to control the defense thereof with counsel of its choice as long as such counsel is reasonably acceptable to Indemnitee; provided, however, that any Indemnitee shall have the right to retain its own counsel at its own expense, for any reason, including if representation of any Indemnitee by the counsel retained by the indemnifying Party would be inappropriate due to actual or potential differing interests between such Indemnitee and any other Party reasonably represented by such counsel in such proceeding. The indemnifying Party shall keep the Indemnitee regularly informed of the status of the defense of any action, claim or liability covered by this Article 10 and shall take into consideration the Indemnitee's reasonable comments thereon. The affected Indemnitee shall cooperate with the indemnifying Party and its legal representatives in the investigation of any action, claim or liability covered by this Article 10. The Indemnitee shall not compromise or settle any claim or suit, or voluntarily incur any expense with respect to any such claim or suit, in each case, without the prior written consent of the indemnifying Party, which such Party shall not be required to give. The failure to deliver written notice to the indemnifying Party within a reasonable time after the commencement of any action with respect to any action, claim or liability covered by this Article 10, if prejudicial to its ability to defend such action, shall relieve the indemnifying Party of any liability to the Indemnitee under this Article 10.

ARTICLE 9 REPRESENTATIONS AND WARRANTIES

9.1 General Warranties. Each Party represents and warrants to the other Party that it is a corporation duly organized and validly existing under the laws of the state or country of its incorporation, the execution, delivery and performance of this Agreement by such Party has been duly authorized by all requisite corporate action, and it has the power and authority to execute and deliver this Agreement and to perform its obligations hereunder (including, in the case of Ascentage, granting the rights and licenses described in Article 2).

9.2 Ascentage Warranties. Ascentage represents and warrants on its own behalf and on behalf of its Affiliates that as of the Effective Date:

(a) except as otherwise disclosed to Unity in writing prior to the Effective Date, (i) Ascentage has not received written notice from a Third Party claiming that the Licensed Compound infringes the intellectual property rights of any Third Party, and (ii) Ascentage is not a party to any legal action, suit or proceeding relating to the Licensed Compound.

(b) except as otherwise disclosed to Unity in writing prior to the Effective Date, there are no actual or pending actions, suits or claims, by any Third Party (i) challenging the ownership of the Licensed Compound; or (b) challenging the validity, effectiveness, enforceability, or ownership of the Licensed Intellectual Property.

(c) except as otherwise disclosed to Unity in writing prior to the Effective Date, the Licensed Patents are subsisting, in force or pending, as the case may be, and are not the subject of any interference, reissue, reexamination, opposition, cancellation or similar administrative proceedings.

(d) except as otherwise disclosed to Unity in writing prior to the Effective Date, Ascentage has not brought a claim alleging an infringement by a Third Party of any of the Licensed Patents and to Ascentage's actual knowledge, there is no actual or alleged infringement by a Third Party of any of the Patents within the Licensed Patents.

(e) there are no Patents: (a) filed by Ascentage and subsequently assigned to Third Party, or (b) with respect to which Ascentage or its Affiliates have acquired rights from a Third Party (i.e., through in-licenses, cross-licenses or otherwise), in each case that (i) would be required for Unity to research, develop, manufacture, use or commercialize the Licensed Compound and (ii) are not included within the Licensed Intellectual Property.

(f) except as otherwise disclosed to Unity in writing prior to the Effective Date, there are no actual or pending suits or claims by any Third Party asserting that the manufacture, use, sale, offer for sale or importing of the Licensed Compound infringes the intellectual property of a Third Party and to Ascentage's knowledge, the development and commercialization of the Licensed Compound would not infringe (i) any issued Patents of any Third Party (other than Patents in-licensed from UM), or (ii) any published Patent claim of any Third Party (other than claims of Patents in-licensed from UM) if such claim were to issue as published.

(g) Ascentage has disclosed to Unity all material agreements with Third Parties in effect as of the Effective Date pursuant to which Licensed Intellectual Property was licensed, acquired or sold, including without limitation all amendments to the UM License Agreement entered into by UM and Ascentage subsequent to the effective date of the License Agreement.

(h) Ascentage has not previously granted and will not grant any rights in the Licensed Intellectual Property that are inconsistent with the rights and licenses granted to Unity herein.

9.3 Certain Rights and Obligations under the UM License Agreement.

(a) Ascentage shall not modify, amend or otherwise alter the UM License Agreement to the extent the same would materially and adversely affect Unity's rights under this Agreement.

(b) Ascentage shall not (a) exercise or fail to exercise any right under the UM License Agreement or (b) provide or fail to provide any consent or approval with respect to any right or obligation under the UM License Agreement, in each case to the extent the same would materially and adversely affect Unity's rights under this Agreement.

(c) Ascentage shall not unilaterally terminate the UM License Agreement.

9.4 Disclaimer. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER PARTY MAKES ANY REPRESENTATIONS OR EXTENDS ANY WARRANTIES TO THE OTHER PARTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, REGARDING THE LICENSED COMPOUND, LICENSED PRODUCTS, UNITY BCL-2 SYSTEMIC PRODUCTS OR THE LICENSED INTELLECTUAL PROPERTY, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, AND VALIDITY OF LICENSED INTELLECTUAL PROPERTY CLAIMS, ISSUED OR PENDING.

9.5 Limitation of Liability. EXCEPT FOR LIABILITY FOR BREACH OF ARTICLE 9, NEITHER PARTY SHALL BE ENTITLED TO RECOVER FROM THE OTHER PARTY ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES IN CONNECTION WITH THIS AGREEMENT; *provided, however*, that this Section 11.5 shall not be construed to limit either party's indemnification obligations under Article 10.

ARTICLE 10 TERM AND TERMINATION

10.1 Term. The term of this Agreement shall commence on the Effective Date and, unless earlier terminated as provided in this Article 12, shall continue in full force and effect on a country-by-country basis until the expiration of all royalty obligations pursuant to this Agreement for such country, as provided in Section 5.4 above. Unity's license with respect to the Licensed Technology shall survive the expiration (but not an earlier termination) of this Agreement, provided that such license shall thereafter become nonexclusive and fully paid-up.

10.2 Termination for Breach. Either Party may terminate this Agreement in the event that the other Party shall have materially breached or defaulted in the performance of any of its material obligations hereunder, and such breach or default shall have continued for sixty (60) days after written notice of such breach and intent to terminate this Agreement therefor was provided to the breaching Party by the nonbreaching Party. Any such termination shall become effective at the end of such sixty (60) day period unless the breaching Party has cured any such breach or default prior to the expiration of the sixty (60) day period. Notwithstanding the foregoing, if the Party alleged to be in breach of this Agreement in good faith disputes such breach within such sixty (60) day period, the nonbreaching Party shall not have the right to terminate this Agreement unless it has been determined by arbitration pursuant to Section 13.2 that this Agreement was materially breached, and the breaching Party fails to comply with its obligations hereunder within sixty (60) days after such determination.

10.3 Termination by Unity. Any provision herein notwithstanding, Unity may terminate this Agreement, in its entirety or as to any particular Patent within the Licensed Patents, or as to any particular Licensed Product, at any time by giving Ascentage at least ninety (90) days prior written

notice. From and after the effective date of a termination under this Section 12.3 with respect to a particular Patent in a particular country, such Patent shall cease to be within the Licensed Patents for all purposes of this Agreement, and all rights and obligations of Unity with respect to such Patent(s) shall terminate. From and after the effective date of a termination under this Section 12.3 with respect to a particular Licensed Product, the license granted under Section 2.1 above shall terminate with respect to such Licensed Product, and the same shall cease to be a Licensed Product for all purposes of this Agreement. Upon a termination of this Agreement in its entirety under this Section 12.3, all rights and obligations of the parties shall terminate, except as provided in Section 12.4 below. For clarity, Unity shall remain obligated to pay any and all milestone and other payments accrued, due and payable to Ascentage prior to such termination.

10.4 Effect of Termination.

10.4.1 Accrued Obligations. Expiration or any termination of this Agreement shall not release either Party hereto from any liability which at the time of such expiration or termination has already accrued to such Party or which is attributable to a period prior to such expiration or termination, subject to the terms of this Agreement, nor preclude either Party from pursuing any rights and remedies it may have hereunder or at law or in equity which accrued to it prior to such expiration or termination, subject to the terms of this Agreement.

10.4.2 Sales of Existing Inventory of Licensed Product. In the event this Agreement is terminated for any reason with respect to a Licensed Product after the first approval of an MAA for such Licensed Product, Unity shall provide Ascentage with a written inventory of all quantities of such Licensed Product that Unity and its Affiliates have in stock and, for a period of [***] ([***)] [***] after such termination, Unity and its Affiliates shall have the right to sell or otherwise dispose of such Licensed Product, all subject to the payment to Ascentage of royalties pursuant to Article 5 hereof.

10.4.3 Survival of Sublicenses. Upon termination of this Agreement for any reason, any sublicense granted by Unity hereunder to a Third Party Sublicensee shall survive, provided that such Third Party Sublicensee continues to pay to Ascentage the milestones and royalties that would have been due to Ascentage under this Agreement based on such Third Party Sublicensee's activities had this Agreement not terminated. For clarity, in the event that a Third Party Sublicensee fails to pay to Ascentage the applicable milestones and royalties due to Ascentage based on such Third Party Sublicensee's activities, Ascentage shall be entitled to terminate such surviving sublicense by providing such Third Party Sublicensee written notice of termination, which notice shall take effect [***] ([***)] days after it is received by such Third Party Sublicensee unless such Third Party Sublicensee has cured any such breach or default prior to the expiration of the [***] ([***)] day period.

10.4.4 Library Agreement. This Agreement is independent of, and shall not be affected by, the expiration or termination of the Library Agreement, and vice versa.

10.4.5 Survival. Articles 1 (Definitions), 6 (Accounting; Records; Method of Payment), 9 (Confidentiality), 10 (Indemnification), 13 (Dispute Resolution) and 14 (Miscellaneous), and Sections 2.1.1(b), 2.1.2(c), 5.2.2, 5.3.2 and 5.4-5.8, (with respect to [***]),

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

7.2.1 (with respect to any ongoing Enforcement Action), 11.3, 11.4 and 12.4 shall survive the expiration or termination of this Agreement for any reason, provided that such survival shall be contingent upon Unity having fulfilled its obligations under Section 5.1.1. Except as otherwise provided in this Article 12, all rights and obligations of the parties under this Agreement shall terminate upon the expiration or termination of this Agreement.

10.5 Condition Precedent.

10.5.1 This Agreement is entered into subject to the condition precedent that Ascentage and UM agree upon and execute an amendment to the UM License Agreement ("Second Amendment") adjusting the royalties owing to UM in connection with the activities contemplated by this Agreement (including the attached Exhibits). All rights and obligations set forth in the Agreement shall only become effective upon the Effective Date.

10.5.2 Ascentage hereby agrees to use its commercially best efforts to complete and execute the Second Amendment as soon as reasonably practicable.

ARTICLE 11 DISPUTE RESOLUTION

11.1 Dispute Resolution. If an unresolved dispute arises out of or relates to this Agreement, or the breach thereof, either Party may refer such dispute to the [***] of Unity and Ascentage, who shall meet in person or by telephone within [***] ([***)] days after such referral to attempt in good faith to resolve such dispute. If such matter cannot be resolved by discussion of such officers within such [***] ([***)] days period (as may be extended by mutual agreement), either Party shall be entitled to seek resolution of such dispute pursuant to Section 13.2 below.

11.2 Arbitration. If the parties are unable to resolve a dispute on an issue of interpretation, breach or enforcement of this Agreement, the parties shall refer such dispute to be finally resolved by binding arbitration under the terms of this Section 13.2, except that all disputes with respect to the validity or infringement of Patents shall be subject to applicable federal court jurisdiction and not subject to the terms of this Section 13.2. Whenever a party shall decide to institute arbitration proceedings, it shall give written notice to that effect to the other party. Any such arbitration shall be conducted under the [***] by a panel of three (3) arbitrators in [***]. Each party shall select one (1) arbitrator who is not employed by, or otherwise affiliated with, such party within [***] ([***)] days after the institution of arbitration proceedings, and the two (2) arbitrators so selected shall designate the third arbitrator. The parties shall use their commercially reasonable efforts to conclude the arbitration hearings within [***] ([***)] [***] following the confirmation of the third and presiding arbitrator.

11.3 Injunctive Relief. Each Party shall be free to seek preliminary or permanent injunctive relief, restraining order or degree of specific performance in any court of competent jurisdiction. For avoidance of doubt, any such equitable remedies provided under this Section 13.3 shall be cumulative and not exclusive and are in addition to any other remedies, which either Party may have under this Agreement or applicable law.

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ARTICLE 12
MISCELLANEOUS

12.1 Governing Laws. This Agreement and any dispute arising from the construction, performance or breach hereof shall be governed by and construed, and enforced in accordance with, the laws of the state of New York, USA, without reference to conflicts of laws principles.

12.2 Waiver. It is agreed that no waiver by either Party hereto of any breach or default of any of the covenants or agreements herein set forth shall be deemed a waiver as to any subsequent and/or similar breach or default.

12.3 Assignment. This Agreement shall not be assignable by either party without the written consent of the other party hereto, except that either party may assign this Agreement, without such consent, to an entity that acquires all or substantially all of the business or assets of such party to which this Agreement relates, whether by merger, reorganization, acquisition, sale, or otherwise; provided, however, that within [***] ([***)] days of such an assignment, the assignee shall agree in writing to be bound by the terms and conditions of this Agreement. Subject to the foregoing, this Agreement shall bind and inure to the benefit of each party's successors and permitted assigns.

12.4 Independent Contractors. The relationship of the Parties hereto is that of independent contractors. The Parties hereto are not deemed to be agents, partners or joint venturers of the others for any purpose as a result of this Agreement or the transactions contemplated thereby.

12.5 Compliance with Laws. In exercising their rights under this Agreement, the Parties shall fully comply in all material respects with the requirements of any and all applicable laws, regulations, rules and orders of any governmental body having jurisdiction over the exercise of rights under this license including, without limitation, those applicable to the discovery, development, manufacture, distribution, import and export and sale of Licensed Products pursuant to this Agreement.

12.6 Notices. All notices, requests and other communications hereunder shall be in writing and shall be personally delivered or by registered or certified mail, return receipt requested, postage prepaid, in each case to the respective address specified below, or such other address as may be specified in writing to the other Parties hereto and shall be deemed to have been given upon receipt:

If to Unity: Unity Biotechnology, Inc.
1700 Owens Street, Suite 535
San Francisco, CA 94158, USA
Attention: [***]
Email: [***]

If to Ascentage: Ascentage Pharma Group Corp. Ltd.
Room 201, QB3 Building, Medical City Avenue
Hi-Tech BioMed District, Taizhou City, Jiangsu Province
P.R. China, 225300
Attention: [***]
Email: [***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

12.7 Severability. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect to the fullest extent permitted by law without said provision, and the Parties shall amend the Agreement to the extent feasible to lawfully include the substance of the excluded term to as fully as possible realize the intent of the Parties and their commercial bargain.

12.8 Advice of Counsel. Unity and Ascentage have each consulted counsel of their choice regarding this Agreement, and each acknowledges and agrees that this Agreement shall not be deemed to have been drafted by one Party or another and will be construed accordingly.

12.9 Performance Warranty. Each Party hereby warrants and guarantees the performance of any and all rights and obligations of this Agreement by its Affiliates, licensees and sublicensees.

12.10 Force Majeure. Neither Party shall lose any rights hereunder or be liable to the other Party for damages or losses (except for payment obligations) on account of failure of performance by the defaulting Party if the failure is occasioned by war, strike, fire, Act of God, earthquake, flood, lockout, embargo, unusual and unexpected governmental intervention, failure of suppliers, or any other reason where failure to perform is beyond the reasonable control and not caused by the negligence, intentional conduct or misconduct of the non-performing Party and such Party has exerted all reasonable efforts to avoid or remedy such force majeure; provided, however, that in no event shall a Party be required to settle any labor dispute or disturbance.

12.11 Complete Agreement. This Agreement with its schedules, together with the Library Agreement and its exhibits, constitutes the entire agreement, both written and oral, between the Parties with respect to the subject matter hereof, and all prior agreements respecting the subject matter hereof, either written or oral, express or implied, shall be abrogated, canceled, and are null and void and of no effect. No amendment or change hereof or addition hereto shall be effective or binding on either of the Parties hereto unless reduced to writing and executed by the respective duly authorized representatives of Unity and Ascentage.

12.12 Headings. The captions to the several Sections and Articles hereof are not a Part of this Agreement, but are included merely for convenience of reference and shall not affect its meaning or interpretation.

12.13 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to be one and the same agreement.

12.14 Bankruptcy. All rights and licenses granted under or pursuant to this Agreement by each Party as a licensor are, and shall otherwise be deemed to be, for purposes of Section 365(n) of Title 11, U.S. Code (the "Bankruptcy Code"), licenses of rights to "intellectual property" as defined under section 101(35A) of the Bankruptcy Code. The Parties agree that each licensee of such rights

under this Agreement, shall retain and may fully exercise all rights and elections it would have in the case of a licensor bankruptcy under the Bankruptcy Code. Each Party agrees during the term of this Agreement to create or maintain current copies, or if not amenable to copying, detailed descriptions or other appropriate embodiments, of all such intellectual property licensed to the other Party.

IN WITNESS WHEREOF, the Parties hereto have caused their duly authorized representatives to execute this Agreement.

ASCENTAGE PHARMA GROUP CORP. LTD.

UNITY BIOTECHNOLOGY, INC.

By: /s/ Dajun Yang

By: /s/ Nathaniel David

Name: Dajun Yang, MD, PhD

Name: Nathaniel David, PhD

Title: Chief Executive Officer

Title: Chief Executive Officer

SCHEDULE 1.2

APG-1252

[***]

Confidential Information
(Property of Ascentage Pharma Group)

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

SCHEDULE 5.1

FORM OF STOCK ISSUANCE AGREEMENT

UNITY BIOTECHNOLOGY, INC.

RESTRICTED STOCK GRANT AGREEMENT

This Restricted Stock Grant Agreement (the “**Agreement**”) is made as of [•] by and between Unity Biotechnology, Inc., a Delaware corporation (the “**Company**”), and Ascentage Pharma Group Corp. Ltd. (the “**Grantee**”).

In consideration of the mutual covenants and representations set forth below, the Company and Grantee agree as follows:

1. *Grant of the Shares.* Subject to the terms and conditions of this Agreement, the Company agrees to grant to Grantee, and Grantee agree to acquire from the Company, on the Closing (as defined below) [•] shares of the Company’s Common Stock, \$0.0001 par value per share (the “**Shares**”), as consideration for services to be provided by Grantee to the Company.

2. *Closing.* The transfer of the Shares shall occur at a closing (the “**Closing**”) to be held on the date first set forth above, or at any other time mutually agreed upon by the Company and Grantee. The Closing will take place at the principal office of the Company or at such other place as shall be designated by the Company. As promptly after the Closing as practicable, the Company will issue a stock certificate, registered in the name of Grantee, reflecting the Shares.

3. *Restrictions on Transfer.*

A. *Investment Representations and Legend Requirements.* The Grantee hereby make the investment representations listed on **Exhibit A** to the Company as of the date of this Agreement and as of the date of the Closing, and agrees that such representations are incorporated into this Agreement by this reference, such that the Company may rely on them in issuing the Shares. Grantee understand and agree that the Company shall cause the legends set forth below, or substantially equivalent legends, to be placed upon any certificate(s) evidencing ownership of the Shares, together with any other legends that may be required by the Company or by applicable state or federal securities laws:

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR THE SECURITIES LAWS OF ANY STATE, AND MAY NOT BE SOLD, TRANSFERRED, ASSIGNED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER SUCH ACT AND/OR APPLICABLE STATE SECURITIES LAWS, OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL OR OTHER EVIDENCE, REASONABLY SATISFACTORY TO THE COMPANY AND ITS COUNSEL, THAT SUCH REGISTRATION IS NOT REQUIRED.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER, A RIGHT OF FIRST REFUSAL, AND A LOCK-UP PERIOD IN THE EVENT OF A PUBLIC OFFERING HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE RESTRICTED STOCK GRANT AGREEMENT BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS, RIGHT OF FIRST REFUSAL AND LOCK-UP PERIOD ARE BINDING ON TRANSFEREES OF THESE SHARES.

THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

B. *Stop-Transfer Notices.* Grantee agree that to ensure compliance with the restrictions referred to herein, the Company may issue appropriate “stop transfer” instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

C. *Refusal to Transfer.* The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any acquirer or other transferee to whom such Shares shall have been so transferred

D. *Lock-Up Period.* Grantee hereby agree that Grantee shall not sell, offer, pledge, contract to sell, grant any option or contract to purchase, purchase any option or contract to sell, grant any right or warrant to purchase, lend or otherwise transfer or encumber, directly or indirectly, any Shares or other securities of the Company, nor shall Grantee enter into any swap, hedging or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Shares or other securities of the Company, during the period from the filing of the first registration statement of the Company filed under the Securities Act of

1933, as amended (the “**Securities Act**”), that includes securities to be sold on behalf of the Company to the public in an underwritten public offering under the Securities Act through the end of the 180-day period following the effective date of such registration statement (or such other period as may be requested by the Company or the underwriters to accommodate regulatory restrictions on (i) the publication or other distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in NASD Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto). The obligations described in this section shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a transaction on Form S-4 or similar forms that may be promulgated in the future. Grantee further agree, if so requested by the Company or any representative of its underwriters, to enter into such underwriter’s standard form of “lockup” or “market standoff” agreement in a form satisfactory to the Company and such underwriter. The Company may impose stop-transfer instructions with respect to securities subject to the foregoing restrictions until the end of any such restriction period.

4. *Company’s Right of First Refusal.* Before any Shares acquired by the Grantee pursuant to this Agreement (or any beneficial interest in such Shares) may be sold, transferred, encumbered or otherwise disposed of in any way (whether by operation of law or otherwise) by the Grantee or any subsequent transferee (each a “**Holder**”), such Holder must first offer such Shares or beneficial interest to the Company and/or its assignee(s) as follows:

A. *Notice of Proposed Transfer.* The Holder shall deliver to the Company a written notice stating: (i) the Holder’s bona fide intention to sell or otherwise transfer the Shares; (ii) the name of each proposed transferee; (iii) the number of Shares to be transferred to each proposed transferee; (iv) the bona fide cash price or other consideration for which the Holder proposes to transfer the Shares; and (v) that by delivering the notice, the Holder offers all such Shares to the Company and/or its assignee(s) pursuant to this section and on the same terms described in the notice.

B. *Exercise of Right of First Refusal.* At any time within 30 days after receipt of the Holder’s notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the proposed transferees, at the purchase price determined in accordance with Section 4.C.

C. *Purchase Price.* The purchase price for the Shares purchased by the Company and/or its assignee(s) under this section shall be the price listed in the Holder’s notice. If the price listed in the Holder’s notice includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in its sole discretion.

D. *Payment.* Payment of the purchase price shall be made, at the option of the Company and/or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company and/or its assignee(s), or by any combination thereof within 30 days after receipt by the Company of the Holder’s notice (or at such later date as is called for by such notice).

E. *Holder's Right to Transfer*. If all of the Shares proposed in the notice to be transferred to a given proposed transferee are not purchased by the Company and/or its assignee(s) as provided in this section, then the Holder may sell or otherwise transfer such Shares to that proposed transferee; *provided that*: (i) the transfer is made only on the terms provided for in the notice, with the exception of the purchase price, which may be either the price listed in the notice or any higher price; (ii) such transfer is consummated within 60 days after the date the notice is delivered to the Company; (iii) the transfer is effected in accordance with any applicable securities laws, and if requested by the Company, the Holder shall have delivered an opinion of counsel acceptable to the Company to that effect; and (iv) the proposed transferee agrees in writing to receive and hold the Shares so transferred subject to all of the provisions of this Agreement, including but not limited to this section, and there shall be no further transfer of such Shares except in accordance with the terms of this section. If any Shares described in a notice are not transferred to the proposed transferee within the period provided above, then before any such Shares may be transferred, a new notice shall be given to the Company, and the Company and/or its assignees shall again be offered the right of first refusal described in this section.

F. *Exception for Certain Family Transfers*. Notwithstanding anything to the contrary contained elsewhere in this section, the transfer of any or all of the Shares during the Holder's lifetime or on the Holder's death by will or intestacy to (i) the Holder's spouse; (ii) the Holder's lineal descendants or antecedents, siblings, aunts, uncles, cousins, nieces and nephews (including adoptive relationships and step relationships), and their spouses; (iii) the lineal descendants or antecedents, siblings, cousins, aunts, uncles, nieces and nephews of Holder's spouse (including adoptive relationships and step relationships), and their spouses; and (iv) a trust or other similar estate planning vehicle for the benefit of the Holder or any such person, shall be exempt from the provisions of this section; *provided that*, in each such case, the transferee agrees in writing to receive and hold the Shares so transferred subject to all of the provisions of this Agreement, including but not limited to this section, and there shall be no further transfer of such Shares except in accordance with the terms of this section; and *provided further*, that without the prior written consent of the Company, which may be withheld in the sole discretion of the Company, no more than three transfers may be made pursuant to this section, including all transfers by the Holder and all transfers by any transferee.

G. *Termination of Right of First Refusal*. The right of first refusal contained in this section shall terminate as to all Shares acquired hereunder upon the earlier of: (i) the closing date of the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act, and (ii) the closing date of a Change of Control pursuant to which the holders of the outstanding voting securities of the Company receive securities of a class registered pursuant to Section 12 of the Securities Exchange Act of 1934, as amended. For purposes of this Agreement, a "**Change of Control**" means either: (i) the acquisition of the Company by another entity by means of any transaction or series of related transactions (including, without limitation, any reorganization, merger or consolidation or stock transfer, but excluding any such transaction effected primarily for the purpose of changing the domicile of the Company), unless the Company's stockholders of record immediately prior to such transaction or series of related transactions hold, immediately after such transaction or series of related

transactions, at least 50% of the voting power of the surviving or acquiring entity (*provided* that the sale by the Company of its securities for the purposes of raising additional funds shall not constitute a Change of Control hereunder); or (ii) a sale of all or substantially all of the assets of the Company.

5. *General Provisions.*

A. *Choice of Law.* This Agreement shall be governed by the internal substantive laws, but not the choice of law rules, of the State of California.

B. *Integration.* This Agreement, including all exhibits hereto, represents the entire agreement between the parties with respect to the acquisition of the Shares by the Grantee and supersedes and replaces any and all prior written or oral agreements regarding the subject matter of this Agreement including, but not limited to, any representations made during any interviews, relocation discussions or negotiations whether written or oral.

C. *Notices.* Any notice, demand, offer, request or other communication required or permitted to be given by either the Company or the Grantee pursuant to the terms of this Agreement shall be in writing and shall be deemed effectively given the earlier of (i) when received, (ii) when delivered personally, (iii) one business day after being delivered by facsimile (with receipt of appropriate confirmation), (iv) one business day after being deposited with an overnight courier service or (v) four days after being deposited in the U.S. mail, First Class with postage prepaid and return receipt requested, and addressed to the parties at the addresses provided to the Company (which the Company agrees to disclose to the other parties upon request) or such other address as a party may request by notifying the other in writing.

D. *Successors.* Any successor to the Company (whether direct or indirect and whether by purchase, merger, consolidation, liquidation or otherwise) to all or substantially all of the Company's business and/or assets shall assume the obligations under this Agreement and agree expressly to perform the obligations under this Agreement in the same manner and to the same extent as the Company would be required to perform such obligations in the absence of a succession. For all purposes under this Agreement, the term "Company" shall include any successor to the Company's business and/or assets which executes and delivers the assumption agreement described in this section or which becomes bound by the terms of this Agreement by operation of law. Subject to the restrictions on transfer set forth in this Agreement, this Agreement shall be binding upon Grantee and their heirs, executors, administrators, successors and assigns.

E. *Assignment; Transfers.* Except as set forth in this Agreement, this Agreement, and any and all rights, duties and obligations hereunder, shall not be assigned, transferred, delegated or sublicensed by the Grantee without the prior written consent of the Company. Any attempt by the Grantee without such consent to assign, transfer, delegate or sublicense any rights, duties or obligations that arise under this Agreement shall be void. Except as set forth in this Agreement, any transfers in violation of any restriction upon transfer contained in any section of this Agreement shall be void, unless such restriction is waived in accordance with the terms of this Agreement.

F. *Waiver*. Either party's failure to enforce any provision of this Agreement shall not in any way be construed as a waiver of any such provision, nor prevent that party from thereafter enforcing any other provision of this Agreement. The rights granted both parties hereunder are cumulative and shall not constitute a waiver of either party's right to assert any other legal remedy available to it.

G. *Grantee Investment Representations and Further Documents*. The Grantee agree upon request to execute any further documents or instruments necessary or reasonably desirable in the view of the Company to carry out the purposes or intent of this Agreement, including (but not limited to) the applicable exhibits and attachments to this Agreement.

H. *Severability*. Should any provision of this Agreement be found to be illegal or unenforceable, the other provisions shall nevertheless remain effective and shall remain enforceable to the greatest extent permitted by law.

I. *Rights as Stockholder*. Subject to the terms and conditions of this Agreement, Grantee shall have all of the rights of a stockholder of the Company with respect to the Shares from and after the date that Grantee deliver a fully executed copy of this Agreement (including the applicable exhibits and attachments to this Agreement) and full payment for the Shares to the Company, and until such time as Grantee dispose of the Shares in accordance with this Agreement. Upon such transfer, Grantee shall have no further rights as a holder of the Shares so purchased except (in the case of a transfer to the Company) the right to receive payment for the Shares so purchased in accordance with the provisions of this Agreement, and Grantee shall forthwith cause the certificate(s) evidencing the Shares so purchased to be surrendered to the Company for transfer or cancellation.

J. *Adjustment for Stock Split*. All references to the number of Shares and the purchase price of the Shares in this Agreement shall be adjusted to reflect any stock split, stock dividend or other change in the Shares which may be made after the date of this Agreement.

K. *Reliance on Counsel and Advisors*. Grantee acknowledge that Wilson Sonsini Goodrich & Rosati, Professional Corporation, is representing only the Company in this transaction. Grantee acknowledges that he or she has had the opportunity to review this Agreement, including all attachments hereto, and the transactions contemplated by this Agreement with his or her own legal counsel, tax advisors and other advisors. Grantee are relying solely on his or her own counsel and advisors and not on any statements or representations of the Company or its agents for legal or other advice with respect to this investment or the transactions contemplated by this Agreement.

L. *Counterparts*. This Agreement may be executed in one or more counterparts, each of which will be deemed an original, but all of which together will constitute one and the same agreement. Facsimile copies of signed signature pages shall be binding originals.

(Signature page follows)

The parties represent that they have read this Agreement in its entirety, have had an opportunity to obtain the advice of counsel prior to executing this Agreement and fully understand this Agreement.

COMPANY:

UNITY BIOTECHNOLOGY, INC.

By: _____

Name: Dr. Nathaniel E. David

Title: President and Chief Executive Officer

[Signature Page to Restricted Stock Grant Agreement]

The parties represent that they have read this Agreement in its entirety, have had an opportunity to obtain the advice of counsel prior to executing this Agreement and fully understand this Agreement. The Grantee agrees to notify the Company of any change in its address below.

GRANTEE:

ASCENTAGE PHARMA GROUP CORP. LTD.

Name:

Title:

Address:

11/F, AXA Centre
Gloucester Road,
Wanchai Hong Kong

[Signature Page to Restricted Stock Grant Agreement]

EXHIBIT A

INVESTMENT REPRESENTATION STATEMENT

GRANTEE : ASCENTAGE PHARMA GROUP CORP. LTD.
COMPANY : UNITY BIOTECHNOLOGY, INC.
SECURITY : COMMON STOCK
AMOUNT : [•] SHARES
DATE : [•]

In connection with the acquisition of the above-listed shares, I, each of the undersigned, represent to the Company as follows:

1. ***The Company may rely on these representations.*** I understand that the Company's sale of the shares to me has not been registered under the Securities Act of 1933, as amended (the "**Securities Act**"), because the Company believes, relying in part on my representations in this document, that an exemption from such registration requirement is available for such sale. I understand that the availability of this exemption depends upon the representations I am making to the Company in this document being true and correct.

2. ***I am purchasing for investment.*** I am purchasing the shares solely for investment purposes, and not for further distribution. My entire legal and beneficial ownership interest in the shares is being acquired and shall be held solely for my account, except to the extent I intend to hold the shares jointly with my spouse. I am not a party to, and do not presently intend to enter into, any contract or other arrangement with any other person or entity involving the resale, transfer, grant of participation with respect to or other distribution of any of the shares. My investment intent is not limited to my present intention to hold the shares for the minimum capital gains period specified under any applicable tax law, for a deferred sale, for a specified increase or decrease in the market price of the shares, or for any other fixed period in the future.

3. ***I can protect my own interests.*** I can properly evaluate the merits and risks of an investment in the shares and can protect my own interests in this regard, whether by reason of my own business and financial expertise, the business and financial expertise of certain professional advisors unaffiliated with the Company with whom I have consulted, or my preexisting business or personal relationship with the Company or any of its officers, directors or controlling persons.

4. ***I am informed about the Company.*** I am sufficiently aware of the Company's business affairs and financial condition to reach an informed and knowledgeable decision to acquire the shares. I have had opportunity to discuss the plans, operations and financial condition of the Company with its officers, directors or controlling persons, and have received all information I deem appropriate for assessing the risk of an investment in the shares.

5. **I recognize my economic risk.** I realize that the acquisition of the shares involves a high degree of risk, and that the Company's future prospects are uncertain. I am able to hold the shares indefinitely if required, and am able to bear the loss of my entire investment in the shares.

6. **I know that the shares are restricted securities.** I understand that the shares are "restricted securities" in that the Company's sale of the shares to me has not been registered under the Securities Act in reliance upon an exemption for non-public offerings. In this regard, I also understand and agree that:

A. I must hold the shares indefinitely, unless any subsequent proposed resale by me is registered under the Securities Act, or unless an exemption from registration is otherwise available (such as Rule 144);

B. the Company is under no obligation to register any subsequent proposed resale of the shares by me; *and*

C. the certificate evidencing the shares will be imprinted with a legend which prohibits the transfer of the shares unless such transfer is registered or such registration is not required in the opinion of counsel for the Company.

7. **I am familiar with Rule 144.** I am familiar with Rule 144 adopted under the Securities Act, which in some circumstances permits limited public resales of "restricted securities" like the shares acquired from an issuer in a non-public offering. I understand that my ability to sell the shares under Rule 144 in the future is uncertain, and may depend upon, among other things: (i) the availability of certain current public information about the Company; (ii) the resale occurring more than a specified period after my acquisition and full payment (within the meaning of Rule 144) for the shares; and (iii) if I am an affiliate of the Company (A) the sale being made in an unsolicited "broker's transaction", transactions directly with a market maker or riskless principal transactions, as those terms are defined under the Securities Exchange Act of 1934, as amended, (B) the amount of shares being sold during any three-month period not exceeding the specified limitations stated in Rule 144, *and* (C) timely filing of a notice of proposed sale on Form 144, if applicable.

8. **I know that Rule 144 may never be available.** I understand that the requirements of Rule 144 may never be met, and that the shares may never be saleable under the rule. I further understand that at the time I wish to sell the shares, there may be no public market for the Company's stock upon which to make such a sale, or the current public information requirements of Rule 144 may not be satisfied, either of which may preclude me from selling the shares under Rule 144 even if the relevant holding period had been satisfied.

9. **I know that I am subject to further restrictions on resale.** I understand that in the event Rule 144 is not available to me, any future proposed sale of any of the shares by me will not be possible without prior registration under the Securities Act, compliance with some other registration exemption (which may or may not be available), or *each* of the following: (i) my written notice to the Company containing detailed information regarding the proposed sale, (ii) my providing an opinion of my counsel to the effect that such sale will not require registration,

and (iii) the Company notifying me in writing that its counsel concurs in such opinion. I understand that neither the Company nor its counsel is obligated to provide me with any such opinion. I understand that although Rule 144 is not exclusive, the Staff of the SEC has stated that persons proposing to sell private placement securities other than in a registered offering or pursuant to Rule 144 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk.

10. **I know that I may have tax liability due to the uncertain value of the shares.** I understand that the Board of Directors believes its valuation of the shares represents a fair appraisal of their worth, but that it remains possible that, with the benefit of hindsight, the Internal Revenue Service may successfully assert that the value of the shares on the date of my acquisition is substantially greater than the Board's appraisal. I understand that any additional value ascribed to the shares by such an IRS determination will constitute ordinary income to me as of the acquisition date, and that any additional taxes and interest due as a result will be my sole responsibility payable only by me, and that the Company need not and will not reimburse me for that tax liability.

11. **Non-U.S. Investor.** If I am not a United States person, I hereby represents that I am satisfied as to the full observance of the laws of my jurisdiction in connection with any invitation to receive the shares issuable pursuant to this Agreement, or any use of this Agreement, including (i) the legal requirements within my jurisdiction for the acquisition of the shares pursuant to this Agreement, (ii) any foreign exchange restrictions applicable to such receipt or transfer, (iii) any governmental or other consents that may need to be obtained and (iv) the income tax and other tax consequences, if any, that may be relevant to the acquisition, holding, redemption, sale or transfer of such securities. My subscription for, and my continued beneficial ownership of the shares will not violate any applicable securities or other laws of my jurisdiction.

12. **Principal Place of Business.** The address of my principal place of business is set forth on the signature page below.

By signing below, the undersigned acknowledge their agreement with each of the statements contained in this Investment Representation Statement as of the date first set forth above, and their intent for the Company to rely on such statements in issuing the shares to me.

ASCENTAGE PHARMA GROUP CORP. LTD.

Address of Grantee' Principal Place of Business:

11/F AXA Centre
Gloucester Road, Wanchai
Hong Kong

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXCLUSIVE LICENSE AGREEMENT

This License Agreement (“Agreement”) is made as is made as of the 28th day of June, 2013 (the “Effective Date”) by and between the Mayo Foundation for Medical Education and Research, having its principal place of business at 200 First Street SW, Rochester, MN 55905 (“Mayo”), and Cenexys, Inc., a Delaware corporation, having a place of business at 1700 Owens St., Suite 535, San Francisco, CA 94158 (“Company”).

BACKGROUND

- A. Mayo owns certain Patent Rights and Know-How (each as defined below);
- B. Company desires to obtain a license from Mayo to the Patent Rights and Know-How, all on the terms and conditions set forth below; and
- C. Company and Mayo further intend to enter into a Research Agreement pursuant to which Company will fund certain research conducted in the laboratories of Drs. Jan Van Deursen and James Kirkland at Mayo (the “Research Agreement”).
- D. Company similarly intends to enter into a research agreement with the Buck Institute for Research on Aging (“Buck Institute”) pursuant to which Company will fund certain research conducted in the laboratories of Dr. Judy Campisi (“Buck Research Agreement”) in exchange for the right to license any resulting inventions and certain additional inventions of Buck Institute that exist as of the Effective Date (“Buck Inventions”) under a license agreement to be entered into by Company and Buck Institute (“Buck License Agreement”).

NOW, THEREFORE, in consideration of the mutual covenants and promises herein contained, the parties hereto agree as follows:

ARTICLE 1 **DEFINITIONS**

As used in this Agreement, the following capitalized terms shall have the meanings indicated:

- 1.1 **“Additional Inventions”** shall mean discoveries and inventions that (i) are necessary or useful for the development, manufacture or commercialization of Licensed Products within the Field, and (ii) are developed in the laboratories of Drs. Jan Van Deursen, James Kirkland and/or Darren Baker at Mayo during the IP Capture Period, excluding inventions generated pursuant to the Research Agreement and subject to the terms thereof.

1.2 “Affiliate” shall mean any entity which controls, is controlled by or is under common control with Company. An entity shall be regarded as in control of another entity for purposes of this definition if it owns or controls more than fifty percent (50%) of the shares of the subject entity entitled to vote in the election of directors (or, in the case of an entity that is not a corporation, for the election of the corresponding managing authority). For Mayo, “Affiliate” shall mean any corporation or other entity within the same “controlled group of corporations” as Mayo or its parent Mayo Clinic. For purposes of this definition, the term “controlled group of corporations” will have the same definition as Section 1563 of the Internal Revenue Code as of November 10, 1998, but will include corporations or other entities which if not a stock corporation, more than fifty percent (50%) of the board of directors or other governing body of such corporation or other entity is controlled by a corporation within the controlled group of corporations of Mayo or Mayo Clinic. Mayo’s Affiliates include, but are not limited to: Mayo Clinic; Mayo Collaborative Services, Inc.; Mayo Clinic - Methodist Hospital; Mayo Clinic - Saint Marys Hospital; Mayo Clinic Florida; Mayo Clinic Arizona; and its Mayo Clinic Health System entities.

1.3 “Buck Know-how” shall mean unpatented technical information, know-how, processes, procedures, compositions, devices, methods, techniques, data or other subject matter that is licensed to Company under the Buck License Agreement.

1.4 “Buck Know-how Product” shall mean a product, composition or material for use in the Field that (a) incorporates Buck Know-How or whose discovery or development was enabled by Company’s use of Buck Know-How and (b) is not a Buck Patent Product.

1.5 “Buck Licensed Product” shall mean a Buck Patent Product or Buck Know-How Product.

1.6 “Buck Patent Rights” shall mean patent and patent applications exclusively licensed to Company under the Buck License Agreement.

1.7 “Buck Patent Product” shall mean a product, composition, or material for use in the Field (i) the manufacture, sale or use of which would but for the license granted herein, infringe a Valid Claim of the Buck Patent Rights, or (ii) whose discovery or development was enabled by Company’s use of a Buck Proprietary Research Tool (“Buck Tool Products”)

1.8 “Buck Proprietary Research Tool” shall mean a Research Tool that has been designated as a Proprietary Research Tool under the Buck License Agreement and exclusively licensed to Company.

1.9 “Buck Proprietary Research Tool Patent” Buck Patent Rights claiming the Buck Proprietary Research Tools.

1.10 “Field” shall mean the (a) prophylaxis , treatment, modulation or palliation of diseases or conditions through (i) the clearance or killing of senescent cells, or (ii) the inhibition or modulation of the deleterious effects of senescent cells, and (b) the prediction, diagnosis, monitoring and tracking of diseases or conditions being prevented, treated, modulated or inhibited pursuant to subsection (a) above.

1.11 “IP Capture Period” shall mean the period commencing on [***] and continuing until [***].

1.12 “Know-How” shall mean unpatented technical information, know-how, processes, procedures, compositions, devices, methods, techniques, data or other subject matter that is owned or controlled by Mayo that is useful for the discovery, development or commercialization of Licensed Products.

1.13 “Know-How Product” shall mean a product, composition or material for use in the Field that (a) incorporates Know-How or whose discovery or development was enabled by Company’s use of Know-How and (b) is not a Patent Product.

1.14 “Licensed Product” shall mean a Patent Product or Know-How Product.

1.15 “Licensed Subject Matter” shall mean the Patent Rights and the Know-How.

1.16 “Net Sales” shall mean the total amount invoiced to third parties on sales of Licensed Products by Company, its Affiliates, or Sublicensees, for which royalties are due under Article 3 below, less the following reasonable and customary deductions actually given: (i) all trade, cash and quantity credits, discounts, refunds or government rebates; (ii) amounts for claims, allowances or credits for returns, retroactive price reductions, or chargebacks; (iii) packaging, handling fees and prepaid freight, sales taxes, duties and other governmental charges (including value added tax) shown on the face of the invoice; and (iv) provisions for uncollectible accounts determined in accordance with US GAAP, consistently applied to all products of the selling party, provided that in no event shall deductions for uncollectible accounts in any annual period exceed [***] percent ([***]%) of the cumulative Net Sales in such annual period. In the event that Company and a third party enter into a barter transaction pursuant to which Company transfers Licensed Products to such third party in exchange for non-cash consideration provided in lieu of cash, then Net Sales shall be calculated based on the value of the non-cash consideration received, provided that in no event shall the transferred Licensed Products be valued at more than the then-current customary sales price for such Licensed Products invoiced to third parties or fair market value if there are no current invoices to third parties. For the removal of doubt, Net Sales shall not include sales by Company to its Affiliates for resale, provided that if Company transfers Licensed Products to an Affiliate, and the Affiliate retransfers the Licensed Products to third-party purchaser, then Net Sales shall be the price charged by the Affiliate to third-party purchaser, less documented allowable deductions.

In the event that Company grants a sublicense hereunder, and receives payments based upon the Sublicensee’s sales of Licensed Products, Company may upon receiving consent from Mayo, which consent shall not be unreasonably withheld, substitute the definition of “Net Sales,” used by the Sublicensee to calculate payments to Company in place of the foregoing definition of “Net Sales” for purposes of calculating royalties payable to Mayo on such Sublicensee’s sales.

1.17 “Net Sublicensing Income” shall mean cash income (or any other consideration received in lieu of a cash payment, including, without limitation, securities, materials and equipment) received from a Sublicensee in consideration of the grant to such Sublicensee of a

sublicense under the Patent Rights, but excluding earned royalties and any other share of net sales (including revenue sharing and profit payments that would otherwise be reflected in net sales) for the sale or distribution of Licensed Products. Net Sublicensing Income shall include without limitation any license signing fee, license maintenance fee, or milestone payment, and any consideration received for an investment in equity (and conditional equity, such as warrants, convertible debt) of Company to the extent such consideration exceeds the fair market value of such equity or other conditional equity. Not included in the definition of Net Sublicensing Income is income received by Company (a) as *bona fide* loans; (b) from equity investments (and conditional equity, such as warrants, convertible debt) in Company at market value; (c) as reimbursements for actual documented patent prosecution costs and patent maintenance expenses; (d) as payment or reimbursement for research and development and/or other services conducted by or for Company, including costs of materials, equipment, manufacturing services or clinical testing, e.g., provided on the basis of full-time equivalent (“FTE”) efforts of personnel at or below commercially reasonable and standard FTE rates (“FTE Reimbursements”) and/or the reimbursement of out-of-pocket expenses; and (g) income to Company from a Sublicensee for commercial manufacturing of goods if such goods are intended for resale to third parties and the revenue derived from sales of such goods will be treated as Net Sales and subject to an earned royalty due to Mayo. In addition, Company shall have the right to deduct from Net Sublicensing Income (i) withholding taxes and other taxes, duties and similar amounts owing with respect to payments included within Net Sublicensing Income, but excluding what are commonly referred to as income taxes, and (ii) Eligible Expenses. As used herein, “Eligible Expenses” means (A) the documented costs and expenses reasonably incurred by Company in performing responsibilities with respect to Licensed Products specifically in connection with a sublicense to the Patent Rights with a Sublicensee, including FTE Reimbursements and out of pocket costs, or in performing research, development, and/or manufacture of Licensed Products in connection with such sublicense; and (B) a reasonable reserve for the costs and expenses that the Company has agreed to incur in a sublicense, but has not yet incurred, in the performance of its responsibilities under such agreement with a Sublicensee (“Future Expenses”), provided that any estimated costs are clearly identified by Company and are accompanied by supporting documentation.

1.18 “Patent Product” shall mean a product, composition, or material for use in the Field (i) the manufacture, sale or use of which would but for the license granted herein, infringe a Valid Claim of the Patent Rights, or (ii) whose discovery or development was enabled by Company’s use of a Proprietary Research Tool (“Tool Products”).

1.19 “Patent Rights” shall mean any and all rights in and to:

(a) all worldwide patent and patent applications claiming or disclosing subject matter claimed or disclosed in the patent(s) and patent application(s) listed in Exhibit A hereto as of the Effective Date (the “Existing Patents”);

(b) all patents and patent applications claiming inventions developed pursuant to Research Agreement for which the Company exercises its option thereunder (“Research Agreement Patents”);

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(c) all patents and patent applications claiming Additional Inventions with respect to which Company exercised its option pursuant to Section 2.2 (“Additional Invention Patents”); and

(d) all divisions, continuations, continuations-in-part (but only for subject matter supported pursuant to 35 U.S.C. §112 by the foregoing) and substitutions of any of the patent applications in (a)-(c) above, all patents issuing thereon, and all registrations, reissues, reexaminations or extensions of any kind with respect to any of the foregoing patents or their foreign counterparts.

In the event that Mayo jointly owns an invention with the Company or a third party who works with the Company in the Field by reason of the fact that personnel of Mayo, Company and/or such third party are joint inventors of such invention, it is understood that the Patent Rights include only Mayo’s rights as a joint owner of the patent applications and patents that claim such joint invention.

1.20 “Permitted Third Party Funding Source” shall mean any non-profit or not-for-profit funding source that provides funding to the laboratories of Drs. Jan Van Deursen, James Kirkland and/or Darren Baker.

1.21 “Proprietary Research Tool” shall mean a Research Tools(a) existing as of the Effective Date and listed on Exhibit C, and (b) any future Research Tool used to discover or develop Patent Products and which Company elects to designate as a Proprietary Research Tool pursuant to Section 2.4.

1.22 “Proprietary Research Tool Patents” shall mean the Patent Rights claiming the Proprietary Research Tools. A list of the Proprietary Research Tool Patents existing as of the Effective Date and organized by the Proprietary Research Tool which they cover, is attached hereto as Exhibit C.

1.23 “Research Tool” means animal models, cell lines, monoclonal antibodies, research assays and reagents, cloning tools, and similar materials whose primary utility is in the conduct of basic scientific research.

1.24 “Research Tool Patent Claim” shall mean a claim of a Research Agreement Patent or Additional Invention Patent that claims a Research Tool that has not been designated as Proprietary Research Tool by Company pursuant to Section 2.4.

1.25 “Sublicensee” shall mean any non-Affiliate third party to whom Company has granted the right to manufacture and sell Licensed Products, with respect to Licensed Products made and sold by such third party.

1.26 “Valid Claim” shall mean a claim of (a) an issued and unexpired patent which has not been held unpatentable, invalid or unenforceable by a court or other government agency of competent jurisdiction and has not been admitted to be invalid or unenforceable through reissue, re-examination, disclaimer or otherwise; provided, however, that if the holding of such court or agency is later reversed by a court or agency with overriding authority, the claim shall be reinstated as a Valid Claim with respect to Net Sales made after the date of such reversal, and (b) a claim of a

pending patent application which has not been abandoned or finally rejected without the possibility of appeal or re-filing and has been pending for less than thirteen (13) years from the filing date from which such claim takes priority, provided that in the event that a pending claim which has ceased to be a deemed a Valid Claim because it has been pending for more than thirteen (13) years eventually issues, Company shall reimburse to Mayo for all back royalties (i.e., all royalties that would have been due during the period commencing on the date such pending claim ceased to be considered a Valid Claim and the date on which it eventually issued), plus interest on such back royalties at the rate described in Section 3.13.

ARTICLE 2 **LICENSE**

2.1 **Grant.** Subject to the terms of the Agreement, Mayo hereby grants to Company a worldwide: (i) exclusive license to all of Mayo's interest in the Patent Rights (excluding the Research Tool Patent Claims) and the Proprietary Research Tools to develop, make, use, sell, offer for sale, import, export or otherwise distribute Licensed Products, and (ii) nonexclusive license under the Research Tool Patent Claims and Know-How to develop, make, use, sell, offer for sale, import, export or otherwise distribute Licensed Products, and to have any of the foregoing performed on its behalf by a third party. Notwithstanding any provisions in this Agreement, all rights granted in and to Additional Inventions under this Agreement will be subject to any and all obligations that Mayo may have to Permitted Third Party Funding Sources

2.2 Option to Additional Inventions.

(a) Subject to the terms of this Agreement, Company shall have an option to include within the license granted to Company under Section 2.1 above, all worldwide patent rights owned or controlled by Mayo with respect to Additional Inventions.

(b) Mayo shall notify Company promptly in writing of all Additional Inventions and shall provide Company with a suitable description and other information reasonably requested by Company for the purpose of evaluating such Additional Inventions for purposes of its option (such notice and accompanying information, an "Invention Disclosure").

(c) To exercise its option with respect to a particular Additional Invention, Company shall so notify Mayo within ninety (90) days after receiving from Mayo a reasonably complete Invention Disclosure for such invention. Following such exercise, all patent applications and/or patents owned or controlled by Mayo directed to such invention shall be deemed included within the Patent Rights.

2.3 **Sublicenses.** Company may grant and authorize sublicenses within the scope of the license granted to Company pursuant to this Agreement. Each such sublicense shall include provisions: (a) substantially identical to Sections 2.5, 2.6 and 13.11 and Articles 10 and 11 with the Sublicensee in place of Company and (b) that are not inconsistent with any terms herein.

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

2.4 Designation of Additional Proprietary Research Tools.

(a) Company shall have the right upon written notice to Mayo to designate any Additional Invention that is a Research Tool or any Research Tool arising under the Research Agreement as a Proprietary Research Tool, in which case all patents and patent applications owned or controlled by Mayo and directed to such Research Tool shall thereafter be deemed Proprietary Research Tool Patents and such Research Tool, together with all patents and patent applications directed thereto, shall be exclusively licensed to Company.

(b) To exercise its option to designate a particular Research Tool as a Proprietary Research Tool, Company shall provide Mayo with written notice of such election at the time it exercises its option under the Research Agreement or Section 2.2 above, as applicable, to include such Research Tool within the licenses granted to Company under Section 2.1 above.

2.5 Retained Rights. Mayo hereby retains a non-exclusive, non-transferrable right under the Licensed Subject Matter for its own clinical (including Mayo's reference laboratory), educational and non-commercial research programs.

2.6 Governmental Rights. All rights herein are subject to the rights and obligations to and requirements of the U.S. government, if any have arisen or may arise, regarding the Patent Rights, including as set forth in 35 U.S.C. §§200 et al., 37 C.F.R. Part 401 et al. ("Bayh-Dole Act"). Company and Mayo each agree to comply with the provisions of the Bayh-Dole Act as relevant to the Patent Rights, including in the case of Mayo, promptly reporting to the U.S. government all subject inventions and taking all actions necessary to take title to the Patent Rights, and in the case of Company, promptly providing to Mayo with information reasonably requested by Mayo that is necessary to enable Mayo to meet its compliance requirements under the Bayh-Dole Act.

2.7 No Implied Licenses. Nothing herein shall be construed as granting Company, by implication, estoppel or otherwise, any license or other right to any intellectual property of Mayo other than the Licensed Subject Matter or to grant to Company any right or license other than those expressly granted herein.

ARTICLE 3
PAYMENTS, FUNDING OBLIGATIONS AND REPORTS

3.1 Equity. In consideration for the rights and licenses granted by Mayo to Company herein and the research development support agreed to by Mayo under Section 3.11, Company shall, within thirty (30) days of the Effective Date and subject to Mayo's execution and delivery to Company of a Stock Issuance Agreement in substantially the form attached hereto as Exhibit B, issue to Mayo Two Million (2,000,000) shares of Company's common stock.

3.2 Minimum Annual Royalty Payments. As further consideration for the rights and licenses granted by Mayo to Company herein Company shall pay to Mayo an annual minimum royalty of [***] U.S. Dollars (\$[***]). The first annual minimum royalty payment shall be due within thirty (30) days of the fourth anniversary of the Effective Date with subsequent annual minimum royalty payments being due within thirty (30) days of each subsequent anniversary of the Effective Date until the expiration (or if applicable, the earlier termination) of this Agreement.

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Annual minimum royalty payments shall be non-refundable but shall be creditable against milestones owed under Section 3.3, running royalties accrued under Section 3.5 and/or sublicensing fees owed under Section 3.7, in each case during the one year period following the date on which such annual minimum royalty payment was paid.

3.3 Development Milestone Payments.

(a) In consideration for the rights and licenses granted by Mayo to Company herein, Company agrees to pay Mayo following payments upon the occurrence of each milestone specified below:

<u>Development Milestone Event</u>	<u>Development Milestone Payment</u>
1. Commencement of a Phase I Clinical Study for a Licensed Product or a Buck Licensed Product	[\$***]
2. Commencement of a Phase II Clinical Study for a Licensed Product or a Buck Licensed Product	[\$***]
3. Commencement of a Phase III Clinical Study for a Licensed Product or a Buck Licensed Product	[\$***]
4. Acceptance of filing of an MAA by the FDA, EMA or MHLW for a Licensed Product or a Buck Licensed Product	[\$***]

(b) Development milestones 1 to 3 shall be payable once each for the first two products (Licensed Products or Buck Licensed Products) to achieve the applicable milestone event. Milestone 4 shall be payable up to six times (i.e., once per MAA filed and accepted for review by the Regulatory Authority), for an aggregate of up to six (6) payments total. For clarity, Company's total payment obligations under this Section 3.3 shall in no event exceed [***] U.S. Dollars (\$[***]) (i.e. up to an aggregate total of [***] under milestones 1 to 3 and up to an aggregate total of [***] under milestone 4).

(c) As used in this Section 3.3, the following terms shall have the following meanings:

(i) "**EMA**" means the European Medicines Agency or any successor agency thereto;

(ii) "**FDA**" means the United States Food and Drug Administration or any successor agency thereto;

(iii) "**Phase I Clinical Study**" means any study in humans the principal purpose of which is preliminary determination of safety in healthy individuals or patients as described under 21 C.F.R. §312.21(a) with respect to the United States, or, with respect to a jurisdiction other than the United States, a similar clinical study, in each case which shall be deemed commenced when the third participant in such study has received his or her initial dose of such Licensed Product or Buck Licensed Product;

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(iv) “**Phase II Clinical Study**” means a preliminary efficacy and dose ranging human clinical study of a License Product in the target patient population, as described under 21 C.F.R. §312.21(b) with respect to the United States, or, with respect to a jurisdiction other than the United States, a similar clinical study, in each case which shall be deemed commenced when the third patient in such study has received his or her initial dose of such Licensed Product or Buck Licensed Product;

(v) “**Phase III Clinical Study**” means a human clinical study designed as a pivotal study to confirm with statistical significance the efficacy and safety of a Licensed Product or Buck Licensed Product with respect to a given indication, which study is performed for purposes of filing an MAA for such Product for such indication as described under 21 C.F.R. §312.21(c) with respect to the United States, or, with respect to a jurisdiction other than the United States, a similar clinical study, in each case which shall be deemed commenced when the third patient in such study has received his or her initial dose of such Licensed Product or Buck Licensed Product; and

(vi) “**MAA**” (Marketing Approval Application) shall mean a new drug application filed with the FDA as more fully defined in 21 C.F.R. §314.50 et. seq., or similar application or submission filed with or submitted to any Regulatory Authority to obtain permission to initiate marketing and sales of a Licensed Product or Buck Licensed Product for a particular indication. An MAA shall be deemed to be “accepted” if it has been accepted for substantive review by the FDA or other applicable Regulatory Authority;

(vii) “**MHLW**” means Japan’s Ministry of Health, Labor and Welfare (also known as “Koroshō”) or any successor agency thereto.

(viii) “**Regulatory Authority**” means a federal, national, multinational, state, provincial or local regulatory agency, department, bureau or other governmental entity with authority over the discovery, development, commercialization or other use or exploitation (including review and approval of MAAs) of pharmaceutical products in any jurisdiction, including the FDA, EMA, and the MHLW.

(d) Company agrees to promptly notify Mayo in writing of the occurrence of each of the foregoing milestones and the payment for such milestone shall be due within thirty (30) days of occurrence thereof.

3.4 Sales Milestones. In further consideration of the exclusive rights granted herein, Company shall pay Mayo the following milestone payments upon achievement of the corresponding sales milestones:

(a) Upon first achieving aggregate Net Sales of a Licensed Product or Buck Licensed Product equal to or exceeding [***] U.S. Dollars (\$[***]), Company shall pay Mayo [***] U.S. Dollars (\$[***]);

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(b) Upon first achieving aggregate Net Sales of a Licensed Product or Buck Licensed Product equal to or exceeding [***] U.S. Dollars (\$[***]), Company shall pay Mayo [***] U.S. Dollars (\$[***]);

(c) Upon first achieving aggregate Net Sales of a Licensed Product or Buck Licensed Product equal to or exceeding [***] U.S. Dollars (\$[***]), Company shall pay Mayo [***] U.S. Dollars (\$[***]);

(d) Upon first achieving aggregate Net Sales of a Licensed Product or Buck Licensed Product equal to or exceeding [***] U.S. Dollars (\$[***]), Company shall pay Mayo [***] U.S. Dollars (\$[***]).

The foregoing sales milestones shall be payable once for each of the first two products (Licensed Products or Buck Licensed Products) to achieve the applicable sales thresholds. For clarity, Company's total payment obligations under this Section 3.4 shall in no event exceed [***] U.S. Dollars (\$[***]). Company agrees to promptly notify Mayo in writing of the occurrence of each of the foregoing milestones and the payment for such milestone shall be included with the royalty payment due for the calendar quarter in which such sales milestone was achieved.

3.5 **Earned Royalty.** As additional consideration of the rights and licenses granted by Mayo to Company herein, except as otherwise provided in this Article 3, Company agrees to pay to Mayo as running royalties a percentage of Net Sales from Licensed Products and Buck Licensed Products sold by Company, its Affiliates and Sublicensees as follows:

(a) [***]% of (i) annual Net Sales of Know-How Products and (ii) of annual net sales of Buck Know-How Products;

(b) For Patent Products and Buck Patent Products for which there are no Valid Claims within the Patent Rights or Buck Patent Rights covering the composition of matter of the applicable Licensed Product or Buck Licensed Product:

<u>Annual Net Sales of Licensed Product</u>	<u>Applicable Royalty Rate</u>
Portion of worldwide annual Net Sales of such Patent Products and Buck Patent Products less than or equal to [***] Dollars (US\$[***])	[***]%
Portion of worldwide annual Net Sales of such Patent Products and Buck Patent Products over [***] Dollars (US\$[***])	[***]%

(c) For Patent Products and Buck Patent Products for which there is at least one Valid Claim within the Patent Rights covering the composition of matter of the applicable Patent Product or Buck Patent Product:

<u>Annual Net Sales of Licensed Product</u>	<u>Applicable Royalty Rate</u>
Portion of worldwide annual Net Sales of such Patent Products and Buck Patent Products less than or equal to [***] Dollars (US\$[***])	[***]%

<u>Annual Net Sales of Licensed Product</u>	<u>Applicable Royalty Rate</u>
Portion of worldwide annual Net Sales of such Patent Products and Buck Patent Products over [***] Dollars (US\$[***])	[***]%

Licensed Products or Buck Licensed Products transferred to Mayo or its Affiliates are not considered transfers for purposes of determining Net Sales or for calculating Earned Royalty. No Earned Royalty is due to Mayo on transfers to Mayo or its Affiliates.

3.6 Certain Additional Terms.

(a) Royalty Term.

(i) Mayo's right to receive royalties under Section 3.5(c) above shall expire on a product-by-product basis in a particular country upon the expiration of the last to expire Valid Claim in the Licensed Patents covering the composition of matter of such Licensed Product in such country (or in the case of the Buck Licensed Patents, upon the expiration of the last to expire Valid Claim in the Buck Licensed Patents covering the composition of matter of such Buck Licensed Product in such country).

(ii) Mayo's right to receive royalties under Section 3.5(b) above shall expire on a product-by-product basis in a particular country upon the expiration of the last to expire Valid Claim in the Licensed Patents covering such Licensed Product in such country (or in the case of the Buck Licensed Patents, upon the expiration of the last to expire Valid Claim in the Buck Licensed Patents covering such Buck Licensed Product in such country), provided that with respect to any Patent Product that is a Tool Product (or any Buck Patent Product that is a Tool Patent), Mayo shall be entitled to continue to receive a royalty under Section 3.5(b) with respect to worldwide sales of such Patent Product or Buck Patent Product until the expiration of the last to expire Valid Claim of the Tool Patent(s) covering the Proprietary Research Tool(s) (or until the expiration of the last to expire Valid Claim of the Buck Tool Patent(s) covering the Buck Proprietary Research Tool(s)), in each case whose use enabled the discovery or development of such Patent Product or Buck Patent Product.

(iii) Mayo's right to receive royalties under Section 3.5(a) above shall expire on earlier of (A) the thirteenth (13th) anniversary of the first commercial sale of the first Licensed Product or Buck Licensed Product by Company anywhere in the world, or (B) January 1, 2037.

(b) Single Royalty; Non-Royalty Sales. In the event that a Licensed Product or Buck Licensed Product would be subject to two or more of the royalty provisions in Sections 3.5 above (e.g., in the event a Licensed Product or Buck Licensed Product is covered by multiple Valid Claims, some of which are composition of matter claims and some of which are not), only a single royalty shall be paid to Mayo with respect to such Licensed Product or Buck Licensed Product, that royalty being the highest of the royalties applicable to such Licensed Product or Buck Licensed Product. It is understood that royalties under Section 3.5(c) shall only be payable with respect to Licensed Products or Buck Licensed Products whose sale would infringe a Valid Claim of the Licensed Patents or Buck Licensed Patents covering the composition of matter of such Licensed Product or

Buck Licensed Product in the country for which such Licensed Product or Buck Licensed Product is sold. In no event shall more than one royalty be due hereunder with respect to any Licensed Product (or Buck Licensed Product) unit; nor shall a royalty be payable under this Article 3 with respect to sales of Licensed Products or Buck Licensed Products at cost for use in research and/or development, in clinical trials or as samples.

(c) Multiple Royalties. If Company, its Affiliate or Sublicensee is required to pay a non-Affiliate third party other than the Buck Institute for Research on Aging amounts with respect to a Licensed Product or Buck Licensed Product under agreements for patent rights or other technologies which Company, its Affiliate or Sublicensee, in its best judgment, determines are necessary to license or acquire with respect to such Licensed Product or Buck Licensed Product, Company may deduct such amount owing to such non-Affiliate third parties (prior to any reductions) from the royalty owing to Mayo for the sale of such Licensed Product or Buck Licensed Product pursuant to Section 3.5 above. Notwithstanding the foregoing provisions of this Section 3.6, in no event shall the royalties due to Mayo pursuant to Section 3.5 above be so reduced to an amount less than:

(i) [***] percent ([**%]) of the amount that would otherwise be due to Mayo with respect to Licensed Products or Buck Licensed Product subject to Sections 3.5(a) or 3.5(b); or

(ii) [***] percent ([**%]) of the amount that would otherwise be due to Mayo with respect to Licensed Products or Buck Licensed Product subject to Section 3.5(c).

(d) Royalties on Buck Licensed Products. Notwithstanding anything to the contrary in this Agreement it is understood and agreed that any given Buck Licensed Product shall only be subject to milestone and royalty obligations under this Agreement if that product is subject to milestone and royalty obligations under the Buck License Agreement.

3.7 Sublicense Fees.

(a) Company shall pay to Mayo [***]% of the Net Sublicensing Income received by Company or its Affiliates

(b) Notwithstanding the foregoing:

(i) Company shall only be obligated to share [***]% of that portion of the Net Sublicensing Income that exceeds the then current aggregate amount spent by Company on the development of the Licensed Products included in such sublicense as of the date such Net Sublicensing Income was received; and

(ii) Company's total payment obligations under this Section 3.7 shall be capped at [***] U.S. Dollars (\$[***]).

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3.8 Records & Accounting. Company will throughout the Term, keep complete, true and accurate books of accounts and records of Net Sales sufficient to support and verify the calculation of all royalties and sales milestones due and payable to Mayo under this Agreement. Such books and records will be open at reasonable times, but not more frequently than once per calendar year, for inspection by a representative of Mayo, at Mayo's expense, for audit and verification of any report required under this Agreement with respect to Net Sales received not more than ten (10) years prior to the date of Mayo's request. Mayo representative will treat as confidential all relevant matters and will be a person or firm reasonably acceptable to Company. In the event such audit reveals an underpayment to Mayo, Company will within thirty (30) days pay the royalty due in excess of the royalty actually paid. In the event the audit reveals an underpayment by Company of more than [***] percent ([***]%) of the amount due, Company will pay interest on the royalty due in excess of the royalty actually paid in accordance with Section 3.13 below and will also pay all of Mayo's costs in conducting the audit. Notwithstanding the foregoing, in the event that it is demonstrated that Company has knowingly underpaid royalties owed to Mayo (other than royalties being withheld by Company in connection with a dispute between the parties pre-dating the audit), Company will pay Mayo interest on the royalty due in excess of the royalty actually paid at the maximum interest rate allowed by law in the State of New York.

3.9 Reports. Beginning with the first accrual of Net Sales on which a royalty is due hereunder, Company shall provide to Mayo a quarterly royalty report as follows: Within ninety (90) days after the end of each calendar quarter, Company shall deliver to Mayo a true and accurate report, giving such particulars of the business conducted by Company, its Affiliates and Sublicensees, if any, during such calendar quarter as are pertinent to account for royalties due under this Article 3. Such report shall include at least (i) the total of Net Sales during such quarter; (ii) the calculation of royalties; and (iii) the total royalties so calculated and due to Mayo. Simultaneously with the delivery of each such report, Company shall pay to Mayo the total royalties, if any, due to Mayo for the period of such report. If no royalties are due, Company shall so report. Mayo shall not provide to non-Affiliate third parties any information contained in reports provided to Mayo under this Section 3.09, or learned by Mayo under Section 3.08 above.

3.10 Payments. All amounts payable hereunder by Company shall be payable in United States Dollars. If any currency conversion shall be required in connection with the payment of royalties hereunder, such conversion shall be made by using the exchange rates used by Company in calculating Company's own revenues for financial reporting purposes.

3.11 Research & Development Funding by Mayo. Subject to the terms and conditions of this Agreement, Mayo agrees to provide a total of up to [***] Dollars in two tranches of [***] Dollars (\$[***]) each towards conducting research and development beneficial to and approved by the Sponsor, which Sponsor has agreed to use to fund research at Mayo. Sponsor shall be permitted to satisfy its payment obligation to Mayo through the use of a convertible promissory note (which note shall be convertible into Series A Preferred Stock of the Sponsor). Parties shall jointly develop the protocols of such research and development program.

3.12 Taxes. Company is responsible for all taxes, duties, import duties, assessments and other governmental charges, however designated, which are now or hereafter imposed by any authority on Company related to manufacture, use, sale or importation of the Licensed Product. Mayo shall be responsible for paying any and all taxes (other than withholding taxes or deduction of

tax at source required by applicable law to be paid by Company) levied on it by account of its receipt of any payments it receives under this Agreement. If applicable laws require that taxes be withheld or deducted at source from any amounts due to Mayo under this Agreement, Company shall (a) deduct these taxes from the remittable amount, (b) pay the taxes to the proper taxing authority, and (c) deliver to Mayo a statement including the amount of tax withheld and justification therefor, and such other information as may be necessary for tax credit purposes. Company will obtain, or assist Mayo in obtaining, any tax reduction (including avoidance of double taxation), tax refund or tax exemption available to Mayo by treaty or otherwise.

3.13 Overdue Payments. If overdue, the payments due under this Agreement shall bear interest until paid at a per annum rate of [***] percent ([***]%) above the prime rate in effect at US Bank on the due date. The acceptance of any payment, including such interest, shall not foreclose Mayo from exercising any other right or seeking any other remedy that it may have as a consequence of the failure of Company to make any payment when due.

ARTICLE 4 **DATA ACCESS**

Promptly after the Effective Date, Mayo shall, upon Company's request, provide to Company all data, reports, analyses and other information in its possession or control relating to the Licensed Products. Thereafter, upon request by Company, Mayo shall provide copies of all such additional materials as have been generated since the prior disclosure. Subject to the provisions of Article 6 below, Company will have the right to use all such data and materials for any purpose, and to provide the same to third parties under reasonable conditions of confidentiality or as Company considers appropriate in connection with obtaining regulatory approval to market and/or commercializing Licensed Products. In addition, as reasonably requested by Company from time to time, Mayo shall at Company's sole expense (reimbursing Mayo's costs to make and deliver such Proprietary Research Tools), deliver to Company reasonable quantities of Proprietary Research Tools based on availability. The Parties agree that any and all materials supplied to Company by Mayo shall be supplied under a material transfer agreement, the terms of which shall be substantially similar to the template material transfer agreement attached hereto as Exhibit D.

ARTICLE 5 **DUE DILIGENCE**

5.1 Obligation to Exploit. Company shall use commercially reasonable efforts to bring one or more Licensed Products to market and to meet the market demand therefor.

5.2 Reports. Within sixty (60) days following the end of each calendar year during the term of this Agreement, Company shall prepare and deliver to Mayo a written report which shall describe, in reasonable detail, the research performed during the previous year employing the Licensed Subject Matter, the progress of the development and exploitation of Licensed Subject Matter during the previous year and the names of all Sublicensees (if any), including which of the Sublicensees are Affiliates Subject to the parameters outlined in Section 3.8.

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ARTICLE 6
CONFIDENTIALITY

6.1 Confidential Information. Except as provided herein, each party shall maintain in confidence, and shall not use for any purpose or disclose to any third party, non-public and proprietary information disclosed by the other party that (a) if in written, graphic, machine readable or other tangible form is marked "Confidential," "Proprietary" or in some other manner to indicate its confidential nature, and if disclosed in oral or other intangible form is designated as confidential at the time of its initial disclosure and is confirmed in writing as confidential within forty-five (45) days following such disclosure, or (b) that, given the nature of the information or the circumstances surrounding its disclosure, reasonably should be considered as confidential (collectively, "Confidential Information"). Confidential Information shall not include any information that is: (i) already known to the receiving party at the time of disclosure hereunder, or (ii) now or hereafter becomes publicly known other than through acts or omissions of the receiving party, or (iii) is disclosed to the receiving party by a third party under no obligation of confidentiality to the disclosing party or (iv) independently developed by the receiving party without reliance on the Confidential Information of the disclosing party.

6.2 Permitted Usage. Notwithstanding the provisions of Section 6.1 above, the receiving party may use or disclose Confidential Information of the disclosing party to the extent necessary to exercise its rights hereunder (including commercialization and/or sublicensing of Licensed Subject Matter) or fulfill its obligations and/or duties hereunder and in filing for, prosecuting or maintaining any proprietary rights, prosecuting or defending litigation, complying with applicable governmental regulations and/or submitting information to tax or other governmental authorities; provided that if the receiving party is required by law to make any public disclosures of Confidential Information of the disclosing party, to the extent it may legally do so, it will give reasonable advance notice to the disclosing party of such disclosure and will use its reasonable efforts to secure confidential treatment of Confidential Information prior to its disclosure (whether through protective orders or otherwise). For clarity, to the extent it is reasonably necessary or appropriate to fulfill its obligations or exercise its rights under this Agreement, a party may disclose Confidential Information of the other to Sublicensees, consultants, and outside contractors on the condition that each such entity receiving such Confidential Information agrees to obligations of confidentiality and non-use at least as stringent as those therein.

ARTICLE 7
PATENTS AND INVENTIONS

7.1 Prosecution of Patent Rights. Company shall be responsible for directing and controlling the filing, prosecution and maintenance of all Patent Rights. Company shall select the patent attorney, who is reasonably acceptable to Mayo. Mayo shall have full rights of consultation with the patent attorney so selected on all matters relating to Patent Rights. For purposes of this Article 7, "prosecution and maintenance" of patents and patent applications shall be deemed to include, without limitation, the conduct of interferences or oppositions, and/or requests for re-examinations, reissues or extensions of patent terms.

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7.2 **Patent Costs.** Company acknowledges and agrees that the license granted hereunder is in partial consideration for Company's assumption of the costs of prosecution and maintenance of the Patent Rights as described herein. Company agrees to pay and shall pay for all expenses incurred in connection with the prosecution and maintenance of the Patent Rights. If Company fails to pay the expenses incurred pursuant to Section 7.1 with respect to one or patents or patent applications, Mayo may, at its sole discretion, terminate Company's license with respect to such patent or patent applications, or with Company's written consent, convert it into a non-exclusive license. If at any time Company determines that it no longer desires to pay the patent costs with respect to one or more patents or patent applications within the Patent Rights, Company shall give sixty (60) days advance written notice to Mayo. Upon such notice, Company's license with respect to such patent or patent application shall terminate and Company shall not be obligated to pay for any corresponding patent costs incurred after the end of such sixty (60) day period (but shall remain responsible for all patent costs incurred prior to and during such sixty (60) day period).

ARTICLE 8

TERM AND TERMINATION

8.1 **Term.** Unless terminated earlier pursuant to this Article 8, the term of this Agreement shall commence on the Effective Date and continue in full force and effect until the happening of the latter of: (1) the expiration, revocation or invalidation of the last issued Valid Claim within the Patent Rights or the abandonment or rejection of the last pending Valid Claim within the Patent Rights, whichever is later, or (2) the expiration of thirteen (13) years after first commercial sale of the first Licensed Product. Upon its natural expiration (and not upon earlier termination), the rights under the Agreement shall convert into a fully paid-up License that grants Company the right to continue selling Licensed Products.

8.2 **Termination for Breach.**

(a) In the event of a material breach of this Agreement, the non-breaching party shall be entitled to terminate this Agreement by written notice to the breaching party, if such breach is not cured within ninety (90) days after written notice is given by the nonbreaching party to the breaching party specifying the breach.

(b) Notwithstanding Section 8.2(a), in the event of a *bonafide* good faith dispute regarding whether in fact a breach has occurred (other than a dispute regarding an alleged breach by Company of Article 11 (Use of Names), which for clarity shall not be subject to the following), if the party alleged to be in breach of a material obligation or provision of this Agreement disputes such breach within the applicable ninety (90) day period, the parties shall submit the dispute to a single arbitrator from the American Arbitration Association ("AAA") for a preliminary, *non-binding* determination, within sixty (60) days of the submission of the matter to arbitration, as to whether it was more likely than not that a material obligation or provision of this Agreement was breached. Such arbitration shall be conducted in New York City in the State of New York pursuant to the commercial arbitration rules of the AAA, as modified by the procedures set forth in this Section 8.2(b). The arbitrator shall be selected by mutual agreement of the parties; provided,

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however, that if the parties cannot agree on an arbitrator within five days of a party's request for a determination under this Section 8.2(b) as to whether a breach of a material obligation or provision of this Agreement has occurred, the arbitrator shall be selected by the AAA. If the arbitrator determines that it is more likely than not that the asserted breach was a breach of a material obligation or provision of this Agreement and the breaching party fails to cure such alleged breach within thirty (30) days after such determination, the non-breaching party may terminate this Agreement forthwith by written notice to the other party. If on the other hand, the arbitrator determines that it is more likely than not that the asserted breach was not a breach of a material obligation or provision of this Agreement, the non-breaching party shall not have the right to terminate this Agreement unless and until it has been finally determined by a court of competent jurisdiction that a material obligation or provision of this Agreement has been breached and the breaching party fails to cure such breach within thirty (30) days after such determination. It is understood that a determination by the arbitrator in accordance with this Article 8.2(a) will not be binding on the parties as to whether the disputed activity was in fact a breach of a material obligation or provision of this Agreement and shall apply only to determine whether or not the cure period should be tolled as provided in this Article 8.2(a). In any case, a final determination of whether a breach of a material obligation or provision of this Agreement has occurred shall be determined only by a court of competent jurisdiction.

8.3 Termination by Company. Any provision herein notwithstanding, Company may terminate this Agreement, in its entirety or as to any particular patent or patent application within the Patent Rights, or as to any particular Licensed Product, at any time by giving Mayo at least sixty (60) days prior written notice. From and after the effective date of a termination under this Section 8.3 with respect to a particular patent or application, such patent(s) and patent application(s) in the particular country shall cease to be within the Patent Rights for all purposes of this Agreement, and all rights and obligations of Company with respect to such patent(s) and patent application(s) shall terminate. From and after the effective date of a termination under this Section 8.3 with respect to a particular Licensed Product, the license granted under Section 2.1 above shall terminate with respect to such Licensed Product, and the same shall cease to be a Licensed Product for all purposes of this Agreement. Upon a termination of this Agreement in its entirety under this Section 8.3, all rights and obligations of the parties shall terminate, except as provided in Section 8.4 below.

8.4 Survival.

(a) Termination of this Agreement for any reason shall not release either party hereto from any liability which at the time of such termination has already accrued to the other party.

(b) In the event this Agreement is terminated for any reason, Company shall provide Mayo with a written inventory of all Licensed Products that Company and its Affiliates have in process of manufacture, in use or in stock and Company and its Affiliates shall have the right to sell or otherwise dispose of such Licensed Products, all subject to the payment to Mayo royalties pursuant to Article 3 hereof.

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(c) Upon termination of this Agreement by Mayo for any reason, any sublicense granted by Company hereunder shall survive, provided that upon request by Mayo, such Sublicensee promptly agrees in writing to be bound by the applicable terms of this Agreement.

(d) Articles 6 (Confidentiality), 10 (Indemnification and Insurance), 11 (Use of Names), Section 8.4 (Survival), 12.3 (Disclaimers) and 13.11 (Limitation of Liability) shall survive the expiration and any termination of this Agreement. Except as otherwise provided in this Article 8, all rights and obligations of the parties under this Agreement shall terminate upon the expiration or termination of this Agreement.

ARTICLE 9 **INFRINGEMENT**

9.1 **Enforcement.** If either party determines that a third party is making, using or selling a product that may infringe the Patent Rights, that party shall notify the other party in writing.

(a) Company shall have the first right (itself or through others), at its sole option, to bring suit to enforce the Patent Rights, and/or to defend any declaratory judgment action with respect thereto, in each case with respect to the manufacture, sale or use of a product within the Field; provided, however, that Company shall keep Mayo reasonably informed as to the defense and/or settlement of such action. Mayo shall have the right to participate in any such action with counsel of its own choice at its own expense. All recoveries received by Company from an action to enforce the Patent Rights shall be first applied to reimburse Company's and then Mayo's unreimbursed expenses, including without limitation, reasonable attorney's fees and court costs. Any remainder shall, to the extent the same pertains to an infringement of the Patent Rights, be divided [***] percent ([***]%) to Company and [***] percent ([***]%) to Mayo, provided that Mayo's portion shall not exceed the amount Mayo would have received as a royalty hereunder if the infringing activities had been made by Company.

(b) In the event Company elects not to initiate an action to enforce the Patent Rights against infringement by a third party within the Field, within one (1) year of a request by Mayo to do so, (or within such shorter period which may be required to preserve the legal rights of Mayo under the laws of the relevant government), Mayo may initiate such action at its expense with Company's consent, which consent shall not be unreasonably withheld. Company shall have the right to participate in any such action with counsel of its own choice at its own expense. All recoveries received by Mayo from an action to enforce the Patent Rights shall be first applied to reimburse Mayo's and then Company's unreimbursed expenses, including without limitation, reasonable attorney's fees and court costs. Any remainder shall, to the extent the same pertains to an infringement of the Patent Rights in the Field, be divided [***] percent ([***]%) to Company and [***] percent ([***]%) to Mayo.

9.2 **Defense.** If Company, its Affiliate, Sublicensee, distributor or other customer is sued by a third party charging infringement of patent rights that dominate a claim of the Patent Rights or that cover other Related Material with respect to the manufacture, use, distribution or sale of a

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Licensed Product, Company will promptly notify Mayo. As between the parties to this Agreement, Company will be entitled to control the defense in any such action(s) and withhold [***] percent ([***]%) of the royalties related to such Licensed Product otherwise payable to Mayo and use the withheld royalties to reimburse the legal defense costs, attorneys' fees and liability incurred in such infringement suit(s). Notwithstanding the foregoing, Company agrees to withhold only that portion of such royalties as may reasonably be necessary to reimburse amounts in accordance with this Section 9.2. For clarity, if Company is required to pay a royalty or other amounts to a third party to make and/or sell a Licensed Product as a result of a final judgment or settlement; such amounts may be deducted from the running royalties payable to Mayo hereunder in accordance with Section 3.6(c) above.

9.3 Cooperation. In any suit, action or other proceeding in connection with enforcement and/or defense of the Patent Rights, Mayo shall reasonably cooperate, including without limitation, by executing such documents as Company may reasonably request. Upon the request of and, at the sole expense of Company, Mayo shall make available at reasonable times and under appropriate conditions all relevant personnel, records, papers, information, samples, specimens and other similar materials in Mayo's possession. In the absence of an agreement to institute a suit jointly, Mayo shall not be required to join such action unless it has agreed to do so in writing prior to the commencement thereof, or unless deemed by the court as a necessary party. Company will bear the entire cost of such litigation, including attorneys' fees.

9.4 No Implied Obligations. Except as expressly provided in this Article 9, neither party has any obligation to bring or prosecute actions or suits against any third party for patent infringement.

ARTICLE 10

INDEMNIFICATION & INSURANCE

10.1 Company shall hold harmless and indemnify Mayo, its trustees, directors, officers, employees, agents and the successor and assigns of any of the foregoing (collectively, the "Indemnitees"), and hold each Indemnitee harmless from and against any and all losses, costs, expenses, damages and liabilities resulting from claims, actions, demands, judgments, suits or proceedings brought by third parties (including, without limitation, reasonable attorneys' fees and other expenses of litigation) (any of the foregoing, a "Claim"), regardless of the legal theory asserted, against any Indemnitee, arising from or occurring as a result of: (a) the exercise or practice by Company or its Affiliates or Sublicensees of the rights and licenses granted under this Agreement, and (b) the research, development, design, manufacture, distribution, use, sale, importation, exportation or other disposition of Licensed Products by Company or its Affiliates or Sublicensees; except and to the extent that such Claim(s) arise from or are related to a breach by Mayo of any of its representations or warranties in Section 12.1. Any Indemnitee that intends to claim indemnification under this Article 10 shall: (i) promptly notify Company in writing of any Claim with respect to which the Indemnitee intends to claim such indemnification, (ii) give Company sole control of the defense and/or settlement thereof, and (iii) provide Company, at Company's expense, with reasonable assistance and full information reasonably available to Mayo

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with respect to such Claim. Company shall not settle any claim, suit or proceeding subject to this Article 10 or otherwise consent to an adverse judgment in such claim, suit or proceeding if the same materially diminishes the rights or interests of the Indemnitee without the express written consent of the Indemnitee. Notwithstanding the foregoing, Company shall have no obligations for any Claim if the Indemnitee seeking indemnification makes any admission, settlement or other communication regarding such Claim (unless made truthfully under a circumstance that legally requires such act by Mayo, in which case Mayo shall use its best efforts to inform Company of such of its intent to make such admission prior to making it) without the prior written consent of Company, which consent shall not be unreasonably withheld

10.2 Insurance.

(a) No later than sixty (60) days following the Effective Date, Company will obtain, keep in force and maintain general liability insurance with minimum coverage limits of at least [***] U.S. Dollars (US \$[***]).

(b) No later than sixty (60) days prior the initiation of the first human clinical testing of the first Licensed Product, Company will obtain, keep in force and maintain occurrence-based liability insurance, including contractual liability, with minimum coverage limits of at least [***] U.S. Dollars (US \$[***]),

(c) No later than sixty (60) days prior the first commercial sale of the first Licensed Product, Company will obtain, keep in force and maintain occurrence-based liability insurance, including products liability and contractual liability, in an amount and for a time period sufficient to cover the liability assumed by Company hereunder during the Term and after, such amount being at least [***] U.S. Dollars (US \$[***]) .

(d) Company's policies will name Mayo and its Affiliates as additional-named insureds. The minimum limits of any insurance coverage required herein shall not limit Company's liability.

ARTICLE 11 **USE OF NAMES**

Except as required by law or in the normal course of business identification, neither Company nor Mayo shall issue any press release or other written statements in connection with this Agreement intended for use in the public media in a manner suggesting any endorsement by the other of Company or Mayo respectively, without the approval of such other party. Company will not use for publicity, promotion or other purpose, any logo, name, trade name, service mark or trademark of Mayo or its Affiliates, including, but not limited to, the terms "Mayo®," "Mayo Clinic®" and the triple shield Mayo logo, or any simulation, abbreviation or adaptation of the same, or the name of any Mayo employee or agent, without Mayo's prior, written, express consent. With regard to the use of Mayo's name, all requests for approval pursuant to this Section must be submitted to the Mayo Clinic Public Affairs Business Relations Group, at the following e-mail address: PublicAffairsBR@Mayo.edu at least ten (10) business days prior to the date on which a response is needed.

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ARTICLE 12
REPRESENTATIONS AND WARRANTIES

12.1 Representations & Warranties by Mayo. (a) Mayo has the sole right and authority to enter into this Agreement and grant the rights and licenses hereunder; (b) Mayo has not previously granted any rights under the Licensed Subject Matter or Proprietary Research Tools to any third party and will not grant any rights in the Proprietary Research Tools and Patent Rights (other than Research Tool Patent Claims with respect to Research Tools that Company has declined to designate as Proprietary Research Tools) to any third party during the term of this Agreement (it being understood that some Licensed Subject Matter and Proprietary Research Tools may be co-owned by third parties and Mayo makes no representations as to how such third parties may have disposed of their rights in such co-owned Licensed Subject Matter and Proprietary Research Tools); (c) to the best of the knowledge of Mayo Clinic Ventures (“MCV”), which is the business unit of Mayo that is in-charge of intellectual property protection and commercialization, there are no claims of third parties as of the Effective Date that would call into question the rights of Mayo to grant to Company the rights contemplated hereunder; and (d) to the best of MCV’s knowledge, except for the Patent Rights, as of the Effective Date, Mayo does not own or control any patent or patent application (including any invention disclosure or draft patent application for which a patent application is intended to be filed) the claims of which would dominate any practice of the Licensed Subject Matter.

12.2 Representations & Warranties by Company. Company warrants and represents to Mayo that:

(a) it has independently evaluated the Patent Rights, Know-How and Proprietary Research Tools and their applicability or utility in Company’s activities, and Company is entering into this Agreement on the basis of its own evaluation of such applicability or utility and not in reliance of any representation by Mayo with respect thereto, and assumes all risk and liability in connection with such determination;

(b) it will obtain and maintain insurance coverage as set forth in Section 10.2;

(c) the execution and delivery of this Agreement has been duly authorized and no further approval, corporate or otherwise, is required in order to execute this binding Agreement;

(d) it shall comply and require its Sublicensees to comply with all applicable international, national and state laws, ordinances and regulations in its performance under this Agreement; and

(e) its rights and obligations under this Agreement do not conflict with any contractual obligation or court or administrative order by which it is bound.

12.3 Disclaimers.

(a) EXCEPT AS PROVIDED IN THIS ARTICLE 12, NEITHER PARTY MAKES ANY WARRANTIES OR CONDITIONS (EXPRESS, IMPLIED, STATUTORY OR OTHERWISE) WITH RESPECT TO THE SUBJECT MATTER HEREOF.

(b) EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY MAKES ANY PROMISES, COVENANTS, GUARANTEES, REPRESENTATIONS OR WARRANTIES OF ANY NATURE, DIRECTLY OR INDIRECTLY, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION IN THE CASE OF MAYO, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SUITABILITY, DURABILITY, CONDITION, QUALITY OR ANY OTHER CHARACTERISTIC OF THE PATENT RIGHTS, KNOW-HOW OR CONFIDENTIAL INFORMATION. SUBJECT TO THE TERMS, REPRESENTATIONS AND WARRANTIES EXPRESSLY PROVIDED IN THIS AGREEMENT, PATENT RIGHTS, KNOW-HOW AND CONFIDENTIAL INFORMATION ARE PROVIDED "AS IS." SUBJECT TO COMPANY'S RIGHTS AT LAW OR IN EQUITY TO SEEK REDRESS FOR ANY BREACH BY MAYO OF THE REPRESENTATIONS AND WARRANTIES EXPRESSLY PROVIDED BY MAYO IN THIS AGREEMENT, COMPANY EXPRESSLY WAIVES ALL RIGHTS TO MAKE ANY CLAIM WHATSOEVER AGAINST MAYO FOR MISREPRESENTATION OR FOR BREACH OF GUARANTEE, REPRESENTATION OR WARRANTY OF ANY KIND RELATING TO THE PATENT RIGHTS, KNOW-HOW OR CONFIDENTIAL INFORMATION. MAYO EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTIES ARISING FROM ANY COURSE OF DEALING, USAGE OR TRADE PRACTICE, WITH RESPECT TO: THE SCOPE, VALIDITY OR ENFORCEABILITY OF THE PATENT RIGHTS, KNOW-HOW AND CONFIDENTIAL INFORMATION; THAT ANY PATENT WILL ISSUE BASED UPON ANY PENDING PATENT APPLICATION; OR THAT THE USE, SALE, OFFER FOR SALE OR IMPORTATION OF THE PATENT RIGHTS, KNOW-HOW OR MATERIALS WILL NOT INFRINGE OTHER INTELLECTUAL PROPERTY RIGHTS. WITHOUT LIMITING MAYO'S OBLIGATIONS UNDER SECTION 9.3 ABOVE TO COOPERATE WITH COMPANY WITH RESPECT TO ENFORCEMENT OF THE PATENT RIGHTS, NOTHING IN THIS AGREEMENT WILL BE CONSTRUED AS AN OBLIGATION FOR MAYO TO BRING, PROSECUTE OR DEFEND ACTIONS REGARDING THE PATENT RIGHTS, KNOW-HOW AND CONFIDENTIAL INFORMATION.

ARTICLE 13
GENERAL

13.1 Patent Marking. Company agrees to mark, and require its Affiliates and Sublicensees to mark, all Licensed Products sold with all applicable patent numbers or otherwise conform to patent laws and practices of the country in which such Licensed Product is sold.

13.2 No Implied Obligations. Company's sole obligation to exploit the Licensed Subject Matter is as set forth in Articles 5. Nothing in this Agreement shall be deemed to require Company to otherwise exploit the Licensed Subject Matter nor prevent Company from commercializing products similar to or competitive with a Licensed Product.

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13.3 Independent Contractors. The relationship of Mayo and Company established by this Agreement is that of independent contractors. Nothing in this Agreement shall be construed to create any other relationship between Mayo and Company. Neither party shall have any right, power or authority to assume, create or incur any expense, liability or obligation, express or implied, on behalf of the other.

13.4 Confidential Terms. Except as expressly provided herein, each party agrees not to disclose any terms of this Agreement to any third party without the consent of the other party, except as required by securities or other applicable laws, to prospective and other investors and such party's accountants, attorneys and other professional advisors.

13.5 Assignment. This Agreement may not be assigned by Company without the prior written consent of Mayo, except to a party that succeeds to all or substantially all of Company's business or assets relating to this Agreement whether by sale, merger, operation of law or otherwise; provided that such assignee or transferee promptly agrees in writing to be bound by the terms and conditions of this Agreement. Mayo may assign its right to receive payments hereunder upon prior written notice to Company.

13.6 Force Majeure. In the event either party hereto is prevented from or delayed in the performance of any of its obligations hereunder by reason of acts of God, war, strikes, riots, storms, fires, or any other cause whatsoever beyond the reasonable control of the party, the party so prevented or delayed shall be excused from the performance of any such obligation to the extent and during the period of such prevention or delay.

13.7 Notices. Any notice or other communication required by this Agreement shall be made in writing and given by prepaid, first class, certified mail, return receipt requested, and shall be deemed to have been served on the date received by the addressee at the following address or such other address as may from time to time be designated to the other party in writing:

If to Mayo: Mayo Foundation for Medical Education and Research
Mayo Clinic Ventures – BB4
200 First Street SW
Rochester, MN 55905-0001
Attn: [***]
Phone: [***]
Facsimile: [***]
Email: [***]

If to Company: Cenexys, Inc.
1700 Owens St., Suite 535,
San Francisco, CA 94158
Attn: [***]
Phone: [***]
Email: [***]

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

with a copy to: Wilson Sonsini Goodrich & Rosati
650 Page Mill Road
Palo Alto, California 94304-1050
Attn: [***]

13.8 Compliance with Law. Company shall comply with all applicable federal, state and local laws and regulations in connection with its activities pursuant to this Agreement.

13.9 Governing Law. This Agreement shall be governed by, and construed and interpreted in accordance with, the laws of the State of New York, without reference to its principles of conflicts of law.

13.10 No Waiver. A waiver, express or implied, by either Mayo or Company of any right under this Agreement or of any failure to perform or breach hereof by the other party hereto shall not constitute or be deemed to be a waiver of any other right hereunder or of any other failure to perform or breach hereof by such other party, whether of a similar or dissimilar nature thereto.

13.11 Limitation of Liability. NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY OR ANY THIRD PARTY FOR ANY SPECIAL, CONSEQUENTIAL, EXEMPLARY OR INCIDENTAL DAMAGES (INCLUDING LOST OR ANTICIPATED REVENUES OR PROFITS RELATING TO THE SAME), ARISING FROM ANY CLAIM RELATING TO THIS AGREEMENT, WHETHER SUCH CLAIM IS BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, EVEN IF AN AUTHORIZED REPRESENTATIVE OF SUCH PARTY IS ADVISED OF THE POSSIBILITY OR LIKELIHOOD OF SAME. IN NO EVENT WILL MAYO'S LIABILITY OF ANY KIND INCLUDE ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE LOSSES OR DAMAGES, EVEN IF MAYO HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, OR EXCEED THE TOTAL COMPENSATION THAT HAS ACTUALLY BEEN PAID TO MAYO BY COMPANY AS OF THE DATE OF FILING AN ACTION AGAINST MAYO THAT RESULTS IN THE SETTLEMENT OR AWARD OF DAMAGES TO COMPANY.

13.12 Headings. Headings included herein are for convenience only, do not form a part of this Agreement and shall not be used in any way to construe or interpret this Agreement.

13.13 Severability. If any provision of this Agreement shall be found by a court to be void, invalid or unenforceable, the same shall be reformed to comply with applicable law or stricken if not so conformable, so as not to affect the validity or enforceability of the remainder of this Agreement.

13.14 Entire Agreement. This Agreement constitutes the entire understanding and agreement between the parties with respect to the subject matter hereof and supersedes any and all prior negotiations, representations, agreements, and understandings, written or oral, that the parties may have reached with respect to the subject matter hereof. No agreements altering or

supplementing the terms hereof may be made except by means of a written document signed by the duly authorized representatives of each of the parties hereto. It is understood that the Research Agreement is separate and independent from this Agreement and termination of either agreement shall not operate to terminate or otherwise effect the rights and obligations of the parties under the other agreement.

13.15 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but both of which together shall constitute one and the same instrument, and photocopy, facsimile, electronic or other copies shall have the same effect for all purposes as an inked original. Each party hereto consents to be bound by photocopy, electronic or facsimile signatures of each party's representative hereto.

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IN WITNESS WHEREOF, the parties hereto have caused their duly authorized representatives to execute this Agreement.

Mayo Foundation for Medical Education
and Research
("Mayo")

Cenexys, Inc.
("Company")

By: /s/ Daniel D. Estes
Name: Daniel D. Estes
Title: Assistant Treasurer

By: /s/ Nathaniel David
Name: Nathaniel David
Title: CEO

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EXHIBIT A
PATENT RIGHTS

[***]

Exhibit A-1

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EXHIBIT B
STOCK PURCHASE AGREEMENT

CENEXYS, INC.

STOCK PURCHASE AGREEMENT

This Stock Purchase Agreement (the “**Agreement**”) is made as of [, 2013] by and between Cenexys, Inc., a Delaware corporation (the “**Company**”), and Mayo Foundation for Medical Education and Research (the “**Purchaser**”).

In consideration of the mutual covenants and representations set forth below, the Company and the Purchaser agree as follows:

1. **Purchase and Sale of the Shares.** Subject to the terms and conditions of this Agreement, the Company agrees to sell to the Purchaser and the Purchaser agrees to purchase from the Company on the Closing (as defined below) 2,000,000 shares of the Company’s Common Stock, par value \$0.0001 per share (the “**Shares**”), at a price of \$0.006 per share (the “**Purchase Price**”), for an aggregate purchase price of \$12,000.00.

2. **Closing.** The purchase and sale of the Shares shall occur at a closing (the “**Closing**”) to be held on the date first set forth above, or at any other time mutually agreed upon by the Company and the Purchaser. The Closing will take place at the principal office of the Company or at such other place as shall be designated by the Company. At the Closing, the Purchaser shall deliver the aggregate Purchase Price set forth above to the Company by wire transfer, check or any other method of payment permissible under applicable law and approved by the Company’s board of directors (or any combination of such methods of payment), and the Company will issue, as promptly thereafter as practicable, a stock certificate, registered in the name of the Purchaser, reflecting the Shares.

3. **Limitation on Payments.**

A. **Payments Limitation.** In the event that the severance and other benefits provided for in this Agreement or otherwise payable to the Purchaser (i) constitute “parachute payments” within the meaning of Section 280G of the Code, and (ii) would be subject to the excise tax imposed by Section 4999 of the Code (the “**Excise Tax**”), then the Purchaser’s benefits under this Agreement shall be either

- (1) delivered in full, or
- (2) delivered as to such lesser extent which would result in no portion of such benefits being subject to the Excise Tax,

whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the Excise Tax, results in the receipt by the Purchaser on an after-tax basis, of the greatest amount of benefits, notwithstanding that all or some portion of such benefits may be taxable under Section 4999 of the Code. Any reduction in payments and/or benefits required by this Section 3 will occur in the following order: (1) reduction of cash payments; (2) reduction of vesting acceleration of

Exhibit B-1

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equity awards; and (3) reduction of other benefits paid or provided to Purchaser. In the event that acceleration of vesting of equity awards is to be reduced, such acceleration of vesting will be cancelled in the reverse order of the date of grant for Purchaser's equity awards. If two or more equity awards are granted on the same date, each award will be reduced on a *pro-rata* basis. In no event will Purchaser exercise any discretion with respect to the ordering of any reductions of payments or benefits under this Section 3.

B. **Determination.** Unless the Company and the Purchaser otherwise agree in writing, any determination required under this Section 3 shall be made in writing by the Company's independent public accountants or a national "Big Four" accounting firm selected by the Company (the "**Accountants**"), whose determination shall be conclusive and binding upon the Purchaser and the Company for all purposes. For purposes of making the calculations required by this Section 3, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Section 280G and 4999 of the Code. The Company and the Purchaser shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this Section 3. The Company shall bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this Section 3.

4. Restrictions on Transfer.

A. **Investment Representations and Legend Requirements.** The Purchaser hereby makes the investment representations listed on **Exhibit A** to the Company as of the date of this Agreement and as of the date of the Closing, and agrees that such representations are incorporated into this Agreement by this reference, such that the Company may rely on them in issuing the Shares. The Purchaser understands and agrees that the Company shall cause the legends set forth below, or substantially equivalent legends, to be placed upon any certificate(s) evidencing ownership of the Shares, together with any other legends that may be required by the Company or by applicable state or federal securities laws:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "**ACT**") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COUNSEL SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION OTHERWISE COMPLIES WITH THE ACT.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER, A RIGHT OF FIRST REFUSAL, A LOCK-UP PERIOD IN THE EVENT OF A PUBLIC OFFERING AND A REPURCHASE OPTION HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE STOCK PURCHASE AGREEMENT BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS, RIGHT OF FIRST REFUSAL, LOCK-UP PERIOD AND REPURCHASE OPTION ARE BINDING ON TRANSFEREES OF THESE SHARES.

Exhibit B-2

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B. **Stop-Transfer Notices.** The Purchaser agrees that to ensure compliance with the restrictions referred to herein, the Company may issue appropriate “stop transfer” instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

C. **Refusal to Transfer.** The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

D. **Lock-Up Period.** The Purchaser hereby agrees that the Purchaser shall not sell, offer, pledge, contract to sell, grant any option or contract to purchase, purchase any option or contract to sell, grant any right or warrant to purchase, lend or otherwise transfer or encumber, directly or indirectly, any Shares or other securities of the Company, nor shall the Purchaser enter into any swap, hedging or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Shares or other securities of the Company, during the period from the filing of the first registration statement of the Company filed under the Securities Act of 1933, as amended (the “**Securities Act**”), that includes securities to be sold on behalf of the Company to the public in an underwritten public offering under the Securities Act through the end of the 180-day period following the effective date of such registration statement (or such other period as may be requested by the Company or the underwriters to accommodate regulatory restrictions on (i) the publication or other distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in NASD Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto). The Purchaser further agrees, if so requested by the Company or any representative of its underwriters, to enter into such underwriter’s standard form of “lockup” or “market standoff” agreement in a form satisfactory to the Company and such underwriter. The Company may impose stop-transfer instructions with respect to securities subject to the foregoing restrictions until the end of any such restriction period.

E. **Shares.** No Shares purchased pursuant to this Agreement, nor any beneficial interest in such Shares, shall be sold, transferred, encumbered or otherwise disposed of in any way (whether by operation of law or otherwise) by the Purchaser or any subsequent transferee, other than in compliance with the Company’s right of first refusal provisions contained in Section 5 of this Agreement.

5. **Company’s Right of First Refusal.** Before any Shares acquired by the Purchaser pursuant to this Agreement (or any beneficial interest in such Shares) may be sold, transferred, encumbered or otherwise disposed of in any way (whether by operation of law or otherwise) by the Purchaser or any subsequent transferee (each a “**Holder**”), such Holder must first offer such Shares or beneficial interest to the Company and/or its assignee(s) as follows:

A. **Notice of Proposed Transfer.** The Holder shall deliver to the Company a written notice stating: (i) the Holder’s *bona fide* intention to sell or otherwise transfer the Shares; (ii) the name of each proposed transferee; (iii) the number of Shares to be transferred to each proposed transferee; (iv) the *bona fide* cash price or other consideration for which the Holder proposes to transfer the Shares; and (v) that by delivering the notice, the Holder offers all such Shares to the Company and/or its assignee(s) pursuant to this section and on the same terms described in the notice.

B. **Exercise of Right of First Refusal.** At any time within 30 days after receipt of the Holder’s notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the proposed transferees, at the purchase price determined in accordance with Section 5.C.

Exhibit B-3

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

C. **Purchase Price.** The purchase price for the Shares purchased by the Company and/or its assignee(s) under this section shall be the price listed in the Holder's notice. If the price listed in the Holder's notice includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the board of directors of the Company in its sole discretion.

D. **Payment.** Payment of the purchase price shall be made, at the option of the Company and/or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company and/or its assignee(s), or by any combination thereof within 30 days after receipt by the Company of the Holder's notice (or at such later date as is called for by such notice).

E. **Holder's Right to Transfer.** If all of the Shares proposed in the notice to be transferred to a given proposed transferee are not purchased by the Company and/or its assignee(s) as provided in this section, then the Holder may sell or otherwise transfer such Shares to that proposed transferee; *provided that:* (i) the transfer is made only on the terms provided for in the notice, with the exception of the purchase price, which may be either the price listed in the notice or any higher price; (ii) such transfer is consummated within 60 days after the date the notice is delivered to the Company; (iii) the transfer is effected in accordance with any applicable securities laws, and if requested by the Company, the Holder shall have delivered an opinion of counsel acceptable to the Company to that effect; and (iv) the proposed transferee agrees in writing to receive and hold the Shares so transferred subject to all of the provisions of this Agreement, including but not limited to this section, and there shall be no further transfer of such Shares except in accordance with the terms of this section. If any Shares described in a notice are not transferred to the proposed transferee within the period provided above, then before any such Shares may be transferred, a new notice shall be given to the Company, and the Company and/or its assignees shall again be offered the right of first refusal described in this section.

F. **Involuntary Transfers.** Subject to the other provisions of this Section 5, in the event, at any time after the date of this Agreement, of any transfer by operation of law or other involuntary transfer (including, but not limited to, transfers by operation of law or other involuntary transfers in connection with a divorce, dissolution, legal separation or annulment) of all or a portion of the Shares by the record holder thereof that does not occur in accordance with the other provisions of this Section 5, the Company shall have the right to purchase all of the Shares transferred at the greater of the purchase price paid by Purchaser pursuant to this Agreement or the fair market value of the Shares on the date of transfer (as determined by the board of directors of the Company). Upon such a transfer, the persons transferring or acquiring the Shares shall promptly notify the Secretary of the Company in writing of such transfer. The right to purchase such Shares shall be provided to the Company for a period of 30 days following receipt by the Company of written notice of the transfer.

G. **Exception for Certain Family Transfers.** Notwithstanding anything to the contrary contained elsewhere in this section, the transfer of any or all of the Shares during the Holder's lifetime (except in connection with a divorce, dissolution, legal separation or annulment) or on the Holder's death by will or intestacy to (i) the Holder's spouse or domestic partner; (ii) the Holder's lineal descendants or antecedents, siblings, aunts, uncles, nieces and nephews (including adoptive relationships and step relationships), and their spouses or domestic partners; and (iv) a trust or other similar estate planning vehicle for the benefit of the Holder or any such person, shall be exempt from the provisions of this section; *provided that*, in each such case, the transferee agrees in writing to receive and hold the Shares so transferred subject to all of the provisions of this Agreement, including but not limited to this section, and there shall be no further transfer of such Shares except in accordance with the terms of this section; and *provided further*, that without the prior written consent of the Company, which may be withheld in the sole discretion of the Company, no more than three transfers may be made pursuant to this

Exhibit B-4

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

section, including all transfers by the Holder and all transfers by any transferee. For purposes of this Agreement, a person will be deemed to be a “**domestic partner**” of another person if the two persons (1) reside in the same residence and plan to do so indefinitely, (2) have resided together for at least one year, (3) are each at least 18 years of age and mentally competent to consent to contract, (4) are not blood relatives any closer than would prohibit legal marriage in the state in which they reside, (5) are financially interdependent, as demonstrated to the reasonable satisfaction of the Company and (6) have each been the sole spouse equivalent of the other for the year prior to the transfer and plan to remain so indefinitely; *provided* that a person will not be considered a domestic partner if he or she is married to another person or has any other spouse equivalent.

H. **Termination of Right of First Refusal.** The rights contained in this section shall terminate as to all Shares purchased hereunder upon the earlier of: (i) the closing date of the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act, and (ii) the closing date of a Change of Control pursuant to which the holders of the outstanding voting securities of the Company receive securities of a class registered pursuant to Section 12 of the Securities Exchange Act of 1934, as amended.

6. **Tax Consequences.** The Purchaser has reviewed with the Purchaser’s own tax advisors the federal, state, local and foreign tax consequences of this investment and the transactions contemplated by this Agreement. The Purchaser is relying solely on such advisors and not on any statements or representations of the Company or any of its agents. The Purchaser understands that the Purchaser (and not the Company) shall be responsible for any tax liability that may arise as a result of the transactions contemplated by this Agreement.

7. **General Provisions.**

A. **Choice of Law.** This Agreement shall be governed by the internal substantive laws, but not the choice of law rules, of California.

B. **Integration.** This Agreement, including all exhibits hereto, represents the entire agreement between the parties with respect to the purchase of the Shares by the Purchaser and supersedes and replaces any and all prior written or oral agreements regarding the subject matter of this Agreement including, but not limited to, any representations made during any interviews, relocation discussions or negotiations whether written or oral.

C. **Notices.** Any notice, demand, offer, request or other communication required or permitted to be given by either the Company or the Purchaser pursuant to the terms of this Agreement shall be in writing and shall be deemed effectively given the earlier of (i) when received, (ii) when delivered personally, (iii) one business day after being delivered by facsimile (with receipt of appropriate confirmation), (iv) one business day after being deposited with an overnight courier service or (v) four days after being deposited in the U.S. mail, First Class with postage prepaid and return receipt requested, and addressed to the parties at the addresses provided to the Company (which the Company agrees to disclose to the other parties upon request) or such other address as a party may request by notifying the other in writing.

D. **Successors.** Any successor to the Company (whether direct or indirect and whether by purchase, merger, consolidation, liquidation or otherwise) to all or substantially all of the Company’s business and/or assets shall assume the obligations under this Agreement and agree expressly to perform the obligations under this Agreement in the same manner and to the same extent as the

Exhibit B-5

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Company would be required to perform such obligations in the absence of a succession. For all purposes under this Agreement, the term "Company" shall include any successor to the Company's business and/or assets which executes and delivers the assumption agreement described in this section or which becomes bound by the terms of this Agreement by operation of law. Subject to the restrictions on transfer set forth in this Agreement, this Agreement shall be binding upon the Purchaser and his or her heirs, executors, administrators, successors and assigns.

E. **Assignment; Transfers.** Except as set forth in this Agreement, this Agreement, and any and all rights, duties and obligations hereunder, shall not be assigned, transferred, delegated or sublicensed by the Purchaser without the prior written consent of the Company. Any attempt by the Purchaser without such consent to assign, transfer, delegate or sublicense any rights, duties or obligations that arise under this Agreement shall be void. Except as set forth in this Agreement, any transfers in violation of any restriction upon transfer contained in any section of this Agreement shall be void, unless such restriction is waived in accordance with the terms of this Agreement.

F. **Waiver.** Either party's failure to enforce any provision of this Agreement shall not in any way be construed as a waiver of any such provision, nor prevent that party from thereafter enforcing any other provision of this Agreement. The rights granted both parties hereunder are cumulative and shall not constitute a waiver of either party's right to assert any other legal remedy available to it.

G. **Purchaser Investment Representations and Further Documents.** The Purchaser agrees upon request to execute any further documents or instruments necessary or reasonably desirable in the view of the Company to carry out the purposes or intent of this Agreement, including (but not limited to) the applicable exhibits and attachments to this Agreement.

H. **Severability.** Should any provision of this Agreement be found to be illegal or unenforceable, the other provisions shall nevertheless remain effective and shall remain enforceable to the greatest extent permitted by law.

I. **Rights as Stockholder.** Subject to the terms and conditions of this Agreement, the Purchaser shall have all of the rights of a stockholder of the Company with respect to the Shares from and after the date that the Purchaser delivers a fully executed copy of this Agreement (including the applicable exhibits and attachments to this Agreement) and full payment for the Shares to the Company, and until such time as the Purchaser disposes of the Shares in accordance with this Agreement. Upon such transfer, the Purchaser shall have no further rights as a holder of the Shares so purchased except (in the case of a transfer to the Company) the right to receive payment for the Shares so purchased in accordance with the provisions of this Agreement, and the Purchaser shall forthwith cause the certificate(s) evidencing the Shares so purchased to be surrendered to the Company for transfer or cancellation.

J. **Adjustment for Stock Split.** All references to the number of Shares and the purchase price of the Shares in this Agreement shall be adjusted to reflect any stock split, stock dividend or other change in the Shares which may be made after the date of this Agreement.

K. **Employment at Will.** ~~THE PURCHASER ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THIS AGREEMENT IS EARNED ONLY BY CONTINUING SERVICE AS A SERVICE PROVIDER AT WILL (AND NOT THROUGH THE ACT OF BEING HIRED OR PURCHASING SHARES HEREUNDER). THE PURCHASER FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A~~

Exhibit B-6

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

~~SERVICE PROVIDER FOR THE VESTING PERIOD, OR FOR ANY PERIOD AT ALL, AND SHALL NOT INTERFERE WITH THE PURCHASER'S RIGHT OR THE COMPANY'S RIGHT TO TERMINATE THE PURCHASER'S RELATIONSHIP WITH THE COMPANY AT ANY TIME, WITH OR WITHOUT CAUSE OR NOTICE.~~ /s/ DE 7-3-13

L. Arbitration and Equitable Relief.

(1) *Arbitration.* IN CONSIDERATION OF THE PROMISES IN THIS AGREEMENT, THE PURCHASER AGREES THAT ANY AND ALL CONTROVERSIES, CLAIMS, OR DISPUTES WITH ANYONE (INCLUDING THE COMPANY AND ANY EMPLOYEE, OFFICER, DIRECTOR, SHAREHOLDER OR BENEFIT PLAN OF THE COMPANY IN THEIR CAPACITY AS SUCH OR OTHERWISE) ARISING OUT OF, RELATING TO, OR RESULTING FROM THIS AGREEMENT, SHALL BE SUBJECT TO BINDING ARBITRATION UNDER THE ARBITRATION RULES SET FORTH IN CALIFORNIA CODE OF CIVIL PROCEDURE SECTION 1280 THROUGH 1294.2, INCLUDING SECTION 1283.05 (THE "RULES") AND PURSUANT TO CALIFORNIA LAW. DISPUTES WHICH THE PURCHASER AGREES TO ARBITRATE, AND THEREBY AGREES TO WAIVE ANY RIGHT TO A TRIAL BY JURY, INCLUDE ANY STATUTORY CLAIMS UNDER STATE OR FEDERAL LAW, INCLUDING, BUT NOT LIMITED TO, CLAIMS UNDER TITLE VII OF THE CIVIL RIGHTS ACT OF 1964, THE AMERICANS WITH DISABILITIES ACT OF 1990, THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967, THE OLDER WORKERS BENEFIT PROTECTION ACT, THE WORKER ADJUSTMENT AND RETRAINING NOTIFICATION ACT, THE CALIFORNIA FAIR EMPLOYMENT AND HOUSING ACT, THE FAMILY AND MEDICAL LEAVE ACT, THE CALIFORNIA FAMILY RIGHTS ACT, THE CALIFORNIA LABOR CODE, CLAIMS OF HARASSMENT, DISCRIMINATION OR WRONGFUL TERMINATION AND ANY STATUTORY CLAIMS. THE PURCHASER FURTHER UNDERSTANDS THAT THIS AGREEMENT TO ARBITRATE ALSO APPLIES TO ANY DISPUTES THAT THE COMPANY MAY HAVE WITH THE PURCHASER.

(2) *Procedure.* THE PURCHASER AGREES THAT ANY ARBITRATION WILL BE ADMINISTERED BY THE AMERICAN ARBITRATION ASSOCIATION ("AAA") AND THAT THE NEUTRAL ARBITRATOR WILL BE SELECTED IN A MANNER CONSISTENT WITH ITS NATIONAL RULES FOR THE RESOLUTION OF EMPLOYMENT DISPUTES. THE PURCHASER AGREES THAT THE ARBITRATOR SHALL HAVE THE POWER TO DECIDE ANY MOTIONS BROUGHT BY ANY PARTY TO THE ARBITRATION, INCLUDING MOTIONS FOR SUMMARY JUDGMENT AND/OR ADJUDICATION AND MOTIONS TO DISMISS AND DEMURRERS, PRIOR TO ANY ARBITRATION HEARING. THE PURCHASER ALSO AGREES THAT THE ARBITRATOR SHALL HAVE THE POWER TO AWARD ANY REMEDIES, INCLUDING ATTORNEYS' FEES AND COSTS, AVAILABLE UNDER APPLICABLE LAW. PURCHASER UNDERSTANDS THAT THE COMPANY WILL PAY FOR ANY ADMINISTRATIVE OR HEARING FEES CHARGED BY THE ARBITRATOR OR AAA EXCEPT THAT PURCHASER SHALL PAY THE FIRST \$125.00 OF ANY FILING FEES ASSOCIATED WITH ANY ARBITRATION PURCHASER INITIATES. PURCHASER AGREES THAT THE ARBITRATOR SHALL ADMINISTER AND CONDUCT ANY ARBITRATION IN A MANNER CONSISTENT WITH THE RULES AND THAT TO THE EXTENT THAT THE AAA'S NATIONAL RULES FOR THE RESOLUTION OF EMPLOYMENT DISPUTES CONFLICT WITH THE RULES, THE RULES SHALL TAKE PRECEDENCE. THE PURCHASER AGREES THAT THE DECISION OF THE ARBITRATOR SHALL BE IN WRITING.

Exhibit B-7

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(3) *Remedy.* EXCEPT AS PROVIDED BY THE RULES AND THIS AGREEMENT, ARBITRATION SHALL BE THE SOLE, EXCLUSIVE AND FINAL REMEDY FOR ANY DISPUTE BETWEEN THE PURCHASER AND THE COMPANY. ACCORDINGLY, EXCEPT AS PROVIDED FOR BY THE RULES AND THIS AGREEMENT, NEITHER THE PURCHASER NOR THE COMPANY WILL BE PERMITTED TO PURSUE COURT ACTION REGARDING CLAIMS THAT ARE SUBJECT TO ARBITRATION. NOTWITHSTANDING, THE ARBITRATOR WILL NOT HAVE THE AUTHORITY TO DISREGARD OR REFUSE TO ENFORCE ANY LAWFUL COMPANY POLICY, AND THE ARBITRATOR SHALL NOT ORDER OR REQUIRE THE COMPANY TO ADOPT A POLICY NOT OTHERWISE REQUIRED BY LAW WHICH THE COMPANY HAS NOT ADOPTED.

(4) *Availability of Injunctive Relief.* BOTH PARTIES AGREE THAT ANY PARTY MAY PETITION A COURT FOR INJUNCTIVE RELIEF AS PERMITTED BY THE RULES INCLUDING, BUT NOT LIMITED TO, WHERE EITHER PARTY ALLEGES OR CLAIMS A VIOLATION OF ANY CONFIDENTIAL INFORMATION OR INVENTION ASSIGNMENT AGREEMENT BETWEEN THE PURCHASER AND THE COMPANY OR ANY OTHER AGREEMENT REGARDING TRADE SECRETS, CONFIDENTIAL INFORMATION, NONSOLICITATION OR LABOR CODE §2870. BOTH PARTIES UNDERSTAND THAT ANY BREACH OR THREATENED BREACH OF SUCH AN AGREEMENT WILL CAUSE IRREPARABLE INJURY AND THAT MONEY DAMAGES WILL NOT PROVIDE AN ADEQUATE REMEDY THEREFOR AND BOTH PARTIES HEREBY CONSENT TO THE ISSUANCE OF AN INJUNCTION. IN THE EVENT EITHER PARTY SEEKS INJUNCTIVE RELIEF, THE PREVAILING PARTY SHALL BE ENTITLED TO RECOVER REASONABLE COSTS AND ATTORNEYS' FEES.

(5) *Administrative Relief.* THE PURCHASER UNDERSTANDS THAT THIS AGREEMENT DOES NOT PROHIBIT THE PURCHASER FROM PURSUING AN ADMINISTRATIVE CLAIM WITH A LOCAL, STATE OR FEDERAL ADMINISTRATIVE BODY SUCH AS THE DEPARTMENT OF FAIR EMPLOYMENT AND HOUSING, THE EQUAL EMPLOYMENT OPPORTUNITY COMMISSION OR THE WORKERS' COMPENSATION BOARD. THIS AGREEMENT DOES, HOWEVER, PRECLUDE THE PURCHASER FROM PURSUING COURT ACTION REGARDING ANY SUCH CLAIM.

(6) *Voluntary Nature of Agreement.* THE PURCHASER ACKNOWLEDGES AND AGREES THAT THE PURCHASER IS EXECUTING THIS AGREEMENT VOLUNTARILY AND WITHOUT ANY DURESS OR UNDUE INFLUENCE BY THE COMPANY OR ANYONE ELSE. THE PURCHASER FURTHER ACKNOWLEDGES AND AGREES THAT THE PURCHASER HAS CAREFULLY READ THIS AGREEMENT AND THAT THE PURCHASER HAS ASKED ANY QUESTIONS NEEDED FOR THE PURCHASER TO UNDERSTAND THE TERMS, CONSEQUENCES AND BINDING EFFECT OF THIS AGREEMENT AND FULLY UNDERSTANDS IT, INCLUDING THAT **THE PURCHASER IS WAIVING THE PURCHASER'S RIGHT TO A JURY TRIAL**. FINALLY, THE PURCHASER AGREES THAT THE PURCHASER HAS BEEN PROVIDED AN OPPORTUNITY TO SEEK THE ADVICE OF AN ATTORNEY OF THE PURCHASER'S CHOICE BEFORE SIGNING THIS AGREEMENT.

M. ***Reliance on Counsel and Advisors.*** The Purchaser acknowledges that Wilson Sonsini Goodrich & Rosati, Professional Corporation, is representing only the Company in this transaction. The Purchaser acknowledges that he or she has had the opportunity to review this Agreement, including all attachments hereto, and the transactions contemplated by this Agreement with his or her own legal counsel, tax advisors and other advisors. The Purchaser is relying solely on his or her own counsel and advisors and not on any statements or representations of the Company or its agents for legal or other advice with respect to this investment or the transactions contemplated by this Agreement.

Exhibit B-8

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

N. **Counterparts.** This Agreement may be executed in one or more counterparts, each of which will be deemed an original, but all of which together will constitute one and the same agreement. Facsimile copies of signed signature pages shall be binding originals.

(signature page follows)

Exhibit B-9

***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

The parties represent that they have read this Agreement in its entirety, have had an opportunity to obtain the advice of counsel prior to executing this Agreement and fully understand this Agreement. The Purchaser agrees to notify the Company of any change in his or her address below.

MAYO FOUNDATION FOR MEDICAL

EDUCATION AND RESEARCH

/s/ Daniel D. Estes

Signature

Daniel D. Estes

Print Name

Address:

200 First Street SW

Rochester, MN 55905

CENEXYS, INC.

Signature

Print Name

Print Title

Exhibit B-10

*** Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

INVESTMENT REPRESENTATION STATEMENT

PURCHASER : Mayo Foundation for Medical Education and Research
COMPANY : Cenexys, Inc.
SECURITY : Common Stock
AMOUNT : 2,000,000 shares
DATE : [, 2013]

In connection with the purchase of the above-listed shares, I, the undersigned purchaser, represent to the Company as follows:

1. **The Company may rely on these representations.** I understand that the Company's sale of the shares to me has not been registered under the Securities Act of 1933, as amended (the "**Securities Act**"), because the Company believes, relying in part on my representations in this document, that an exemption from such registration requirement is available for such sale. I understand that the availability of this exemption depends upon the representations I am making to the Company in this document being true and correct.

2. **I am purchasing for investment.** I am purchasing the shares solely for investment purposes, and not for further distribution. My entire legal and beneficial ownership interest in the shares is being purchased and shall be held solely for my account, except to the extent I intend to hold the shares jointly with my spouse. I am not a party to, and do not presently intend to enter into, any contract or other arrangement with any other person or entity involving the resale, transfer, grant of participation with respect to or other distribution of any of the shares. My investment intent is not limited to my present intention to hold the shares for the minimum capital gains period specified under any applicable tax law, for a deferred sale, for a specified increase or decrease in the market price of the shares, or for any other fixed period in the future.

3. **I can protect my own interests.** I can properly evaluate the merits and risks of an investment in the shares and can protect my own interests in this regard, whether by reason of my own business and financial expertise, the business and financial expertise of certain professional advisors unaffiliated with the Company with whom I have consulted, or my preexisting business or personal relationship with the Company or any of its officers, directors or controlling persons.

4. **I am informed about the Company.** I am sufficiently aware of the Company's business affairs and financial condition to reach an informed and knowledgeable decision to acquire the shares. I have had opportunity to discuss the plans, operations and financial condition of the Company with its officers, directors or controlling persons, and have received all information I deem appropriate for assessing the risk of an investment in the shares.

5. **I recognize my economic risk.** I realize that the purchase of the shares involves a high degree of risk, and that the Company's future prospects are uncertain. I am able to hold the shares indefinitely if required, and am able to bear the loss of my entire investment in the shares.

Exhibit B-11

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

6. ***I know that the shares are restricted securities.*** I understand that the shares are “restricted securities” in that the Company’s sale of the shares to me has not been registered under the Securities Act in reliance upon an exemption for non-public offerings. In this regard, I also understand and agree that:

A. I must hold the shares indefinitely, unless any subsequent proposed resale by me is registered under the Securities Act, or unless an exemption from registration is otherwise available (such as Rule 144);

B. the Company is under no obligation to register any subsequent proposed resale of the shares by me; *and*

C. the certificate evidencing the shares will be imprinted with a legend which prohibits the transfer of the shares unless such transfer is registered or such registration is not required in the opinion of counsel for the Company.

7. ***I am familiar with Rule 144.*** I am familiar with Rule 144 adopted under the Securities Act, which in some circumstances permits limited public resales of “restricted securities” like the shares acquired from an issuer in a non-public offering. I understand that my ability to sell the shares under Rule 144 in the future is uncertain, and may depend upon, among other things: (i) the availability of certain current public information about the Company; (ii) the resale occurring more than a specified period after my purchase and full payment (within the meaning of Rule 144) for the shares; and (iii) if I am an affiliate of the Company (A) the sale being made in an unsolicited “broker’s transaction”, transactions directly with a market maker or riskless principal transactions, as those terms are defined under the Securities Exchange Act of 1934, as amended, (B) the amount of shares being sold during any three-month period not exceeding the specified limitations stated in Rule 144, *and* (C) timely filing of a notice of proposed sale on Form 144, if applicable.

8. ***I know that Rule 144 may never be available.*** I understand that the requirements of Rule 144 may never be met, and that the shares may never be saleable under the rule. I further understand that at the time I wish to sell the shares, there may be no public market for the Company’s stock upon which to make such a sale, or the current public information requirements of Rule 144 may not be satisfied, either of which may preclude me from selling the shares under Rule 144 even if the relevant holding period had been satisfied.

9. ***I know that I am subject to further restrictions on resale.*** I understand that in the event Rule 144 is not available to me, any future proposed sale of any of the shares by me will not be possible without prior registration under the Securities Act, compliance with some other registration exemption (which may or may not be available), or *each* of the following: (i) my written notice to the Company containing detailed information regarding the proposed sale, (ii) my providing an opinion of my counsel to the effect that such sale will not require registration, and (iii) the Company notifying me in writing that its counsel concurs in such opinion. I understand that neither the Company nor its counsel is obligated to provide me with any such opinion. I understand that although Rule 144 is not exclusive, the Staff of the SEC has stated that persons proposing to sell private placement securities other than in a registered offering or pursuant to Rule 144 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk.

Exhibit B-12

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

10. **I know that I may have tax liability due to the uncertain value of the shares.** I understand that the board of directors believes its valuation of the shares represents a fair appraisal of their worth, but that it remains possible that, with the benefit of hindsight, the Internal Revenue Service may successfully assert that the value of the shares on the date of my purchase is substantially greater than the Board's appraisal. I understand that any additional value ascribed to the shares by such an IRS determination will constitute ordinary income to me as of the purchase date, and that any additional taxes and interest due as a result will be my sole responsibility payable only by me, and that the Company need not and will not reimburse me for that tax liability.

11. **Residence.** The address of my principal residence is set forth on the signature page below.

(signature page follows)

Exhibit B-13

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

By signing below, I acknowledge my agreement with each of the statements contained in this Investment Representation Statement as of the date first set forth above, and my intent for the Company to rely on such statements in issuing the shares to me.

**MAYO FOUNDATION FOR MEDICAL EDUCATION
AND RESEARCH**

/s/ Daniel D. Estes

Purchaser's Signature

Daniel D. Estes

Print Name

Assistant Treasurer

Title

Address of Purchaser's principal address:

200 First Street SW

Rochester, MN 55905

ii.

Exhibit B-14

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT C
PROPRIETARY RESEACH TOOLS

[***]

Exhibit C-1

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT D
MATERIAL TRANSFER AGREEMENT

MATERIAL TRANSFER AGREEMENT

Mayo Foundation for Medical Education and Research

Dr. _____ (Recipient Scientist)

DATE

COMPANY NAME

ADDRESS

ADDRESS

Mayo Foundation for Medical Education and Research (MAYO) is pleased to be able to provide INSERT MATERIALS HERE and any components thereof, which we shall refer to throughout this agreement as the "Material," to you at COMPANY NAME (Company). MAYO is interested in supporting research using the Material and will provide you with samples of the Material as long as you agree to certain conditions on your use of the Material. The conditions described below are necessary to insure that the Material is used solely for research and that MAYO's interests in any possible commercialization of the Material are protected. These conditions are:

1. The Material is owned by MAYO and is provided under a license agreement effective as of _____ ("License") between the parties. Upon termination of your research or use of the Material and/or at the instructions of MAYO, you shall either return the Material to MAYO or destroy all unused portions of the Material.
2. Use of the Material must be restricted to research experimentation in compliance with applicable laws and regulations. The Material must not be used in human subjects, in clinical trials, for diagnostic purposes involving human subjects, or to make any derivatives or progeny, as applicable, thereof without the written consent of MAYO.
3. The Material must not be transferred to any other parties, other than researchers at your Company or collaborators that are working on specific research projects on behalf of the Company (and transferred for the purpose of such collaboration) without first having obtained

Exhibit D-1

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

a written agreement to the transfer from MAYO. No researchers working with you may use the Material unless they are aware of and agree to be bound by the terms of this agreement. Both parties shall comply with all applicable laws and regulations, as amended from time to time, with respect to the collection, use, storage and disclosure of the Material and any related data, including without limitation, the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and its implementing regulations (45 C.F.R. et.seq.)

4. Except to the extent prohibited by law, Company will assume all liability for damages which may arise from its use, storage or disposal of the Material. MAYO will not be liable to Company for any loss, claim or demand made by Company or made against Company by any other party, due to or arising from the use of the Material by Company, except to the extent permitted by law when caused by the gross negligence or willful misconduct of MAYO.
5. ANY MATERIAL DELIVERED PURSUANT TO THIS AGREEMENT IS UNDERSTOOD TO BE EXPERIMENTAL IN NATURE AND MAY HAVE HAZARDOUS PROPERTIES. ANY MATERIAL PROVIDED IS PROVIDED AS IS AND MAYO MAKES NO AND HEREBY DISCLAIMS ALL REPRESENTATIONS OR WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED. THERE ARE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR THAT THE USE OF THE MATERIAL WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADEMARK OR OTHER PROPRIETARY RIGHTS.
6. Company agrees to provide appropriate acknowledgement of the source of the Material in all publications.
7. Company agrees to pay \$ _____ in partial reimbursement of the costs of producing, maintaining and distributing the Material.
8. Company will not use publicly for publicity, promotion, or otherwise, any logo, name, trade name, service mark, or trademark of MAYO or its Affiliates, including, but not limited to the terms "Mayo®," "Mayo Clinic®," and the triple shield Mayo logo, or any simulation, abbreviation, or adaptation of the same, or the name of any MAYO employee or agent, without MAYO's prior, written, express consent, other than provided in Section 6 above. MAYO may withhold such consent in MAYO's absolute discretion.
9. This agreement, in conjunction with the license agreement, constitutes the final, complete and exclusive agreement between the parties with respect to its subject matter and supercedes all past and contemporaneous agreements, promises, and understandings, whether oral or written, between the parties. This agreement shall be binding upon and inure to the benefit of the parties, their heirs, legal representatives, successors and assigns. This agreement may not be amended or modified except by a writing signed by both parties and identified as an amendment to this agreement. Neither this agreement nor any of the rights or obligations under the agreement may be assigned by Company without the written consent of MAYO. The

Exhibit D-1

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

failure of MAYO to insist at any time upon the strict observance or performance of any of the provisions of this agreement, or to exercise any right or remedy as provided in this agreement, will not impair any such right or remedy and will not be construed to be a waiver or relinquishment of the right or remedy. Execution of this agreement can be effected by photocopied, scanned or faxed signatures.

If you agree to these conditions, please sign in the space provided below as the Recipient and have an authorized representative of your Company sign where indicated. Return the agreement to Mayo Foundation for Medical Education and Research, Mayo Clinic Ventures, 200 First Street SW, Rochester, MN 55905. Upon receipt of the signed agreement, MAYO will provide the Material as requested.

[SIGNATURES ON THE NEXT PAGE]

Exhibit D-3

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH

By: _____
Daniel D. Estes, Assistant Treasurer

Date: _____

READ AND UNDERSTOOD BY THE RECIPIENT SCIENTIST:

(Recipient Scientist Signature)*

(Recipient Scientist)

ACCEPTED AND AGREED BY AUTHORIZED REPRESENTATIVE OF RECEIVING COMPANY

By: _____

Date: _____

(Authorized Representative's Signature)*

Printed Name and Title: _____

Company: _____

Address: _____

Phone No.: _____

* Please Note: The Recipient and the Authorized Representative cannot be the same.

Exhibit D-4

*** Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

AMENDMENT NO. 1 TO EXCLUSIVE LICENSE AGREEMENT

THIS Amendment No.1 to Exclusive License Agreement (“Amendment”) is made and entered into this 10th day of September 2014 (“Effective Date”), by and between the Mayo Foundation for Medical Education and Research (“Mayo”) having its principal place of business at 200 First Street SW, Rochester, MN 55905, and Cenexys, Inc., a Delaware corporation, having a place of business at 1700 Owen Street, Suite 535 San Francisco, CA 94158 (“Company”), for purposes of confirming the parties’ intent and agreement as set forth herein.

BACKGROUND

Mayo and Company are parties to an Exclusive License Agreement, with an effective date of the 28th day of June, 2013 (“Agreement”), which confirms the parties’ intent and agreement to grant an exclusive license to Mayo’s certain patent rights and a nonexclusive license to certain know-how. Mayo and Company wish to amend the Agreement as set forth in this Amendment No. 1, and, accordingly, Mayo and Company agree as follows:

AMENDED TERMS

Exhibit A in its entirety will be deleted and replaced with the exhibit attached to this Amendment No. 1.

All other terms of the Agreement shall remain in full force and effect for the term of the Agreement and as set forth in the Agreement.

IN WITNESS WHEREOF, Mayo and Company hereby enter into this Amendment No. 1, effective as of the date first set forth above.

Cenexys, Inc.

Mayo Foundation for Medical Education and Research

By: /s/ Nathaniel E. David

Nathaniel E. David, Ph.D.
CEO

By: James A. Rogers, III

James A. Rogers, III
Assistant Secretary

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT A

PATENT RIGH

[*]**

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

AMENDMENT NO. 2 TO EXCLUSIVE LICENSE AGREEMENT

THIS Amendment No.2 to Exclusive License Agreement (“Amendment 2”) is made and entered into this 17th day of November 2014 (“Effective Date of Amendment 2”), by and between the Mayo Foundation for Medical Education and Research (“Mayo”) having its principal place of business at 200 First Street SW, Rochester, MN 55905, and Cenexys, Inc., a Delaware corporation, having a place of business at 1700 Owen Street, Suite 535 San Francisco, CA 94158 (“Company”), for purposes of confirming the parties’ intent and agreement as set forth herein.

BACKGROUND

Mayo and Company are parties to an Exclusive License Agreement, with an effective date of the 28th day of June, 2013 (“Agreement”), which confirms the parties’ intent and agreement to grant an exclusive license to Mayo’s certain patent rights and a nonexclusive license to certain know-how along with the first Amendment to the Agreement. Mayo and Company wish to amend the Agreement as set forth in this Amendment No. 2, and, accordingly, Mayo and Company agree as follows:

AMENDED TERMS

The first clause of Section 3.1 which reads:

“In consideration for the rights and licenses granted by Mayo to Company herein and the research development support agreed to by Mayo under Section 3.11,”

is hereby amended to read as follows:

“As partial consideration for the rights and licenses granted by Mayo to Company herein as of the end of the IP Capture Period,”

All other terms of the Agreement and the first Amendment shall remain in full force and effect for the term of the Agreement and as set forth in the Agreement.

IN WITNESS WHEREOF, Mayo and Company hereby enter into this Amendment No. 2, effective as of the date first set forth above.

Cenexys, Inc.

Mayo Foundation for Medical Education and Research

By: /s/ Nathaniel E. David

Nathaniel E. David, Ph.D.
CEO

By: /s/ James A. Rogers, III

James A. Rogers, III
Assistant Secretary

AMENDMENT NO. 3 TO EXCLUSIVE LICENSE AGREEMENT

THIS Amendment No. 3 to Exclusive License Agreement (“Amendment 3”) is made and entered into this 5th day of May, 2015 (“Effective Date of Amendment 3”), by and between the Mayo Foundation for Medical Education and Research (“Mayo”) having its principal place of business at 200 First Street SW, Rochester, Minnesota 55905, and Unity Biotechnology, Inc. (formerly known as Cenexys, Inc.), a Delaware corporation, having a place of business at 1700 Owen Street, Suite 535 San Francisco, California 94158 (“Company”), for purposes of confirming the parties’ intent and agreement as set forth herein.

BACKGROUND

Mayo and Company are parties to an Exclusive License Agreement, with an effective date of the 28th day of June, 2013 (“Agreement”), which confirms the parties’ intent and agreement to grant an exclusive license to Mayo’s certain patent rights and a nonexclusive license to certain know-how along with Amendment No. 1 and Amendment No. 2 to the Agreement. Mayo and Company wish to amend the Agreement as set forth in this Amendment No. 3, and, accordingly, Mayo and Company agree as follows:

AMENDED TERMS

Exhibit A in its entirety will be deleted and replaced with the exhibit attached to this Amendment No. 3.

All other terms of the Agreement and Amendment No. 2 shall remain in full force and effect for the term of the Agreement and as set forth in the Agreement.

IN WITNESS WHEREOF, Mayo and Company hereby enter into this Amendment No. 3, effective as of the date first set forth above.

Unity Biotechnology, Inc.

By: /s/ Nathaniel E. David
 Name: Nathaniel E. David, PhD
 Title: President

Mayo Foundation for Medical Education and Research

By: /s/ Daniel D. Estes
 Name: Daniel D. Estes
 Title: Assistant Treasurer

*** Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT A
PATENT RIGHTS

[***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

AMENDMENT NO. 4 TO EXCLUSIVE LICENSE AGREEMENT

THIS Amendment No. 4 to Exclusive License Agreement (“Amendment No. 4”) is made and entered into this 15th day of September 2016 (“Effective Date of Amendment No. 4”), by and between the Mayo Foundation for Medical Education and Research (“Mayo”) having its principal place of business at 200 First Street SW, Rochester, Minnesota 55905, and Unity Biotechnology, Inc. (formerly known as Cenexys, Inc.), a Delaware corporation, having a place of business at 3280 Bayshore Blvd, Brisbane (“Company”), for purposes of confirming the parties’ intent and agreement as set forth herein.

BACKGROUND

Mayo and Company are parties to an Exclusive License Agreement, with an effective date of the 28th day of June, 2013 (“Agreement”), which confirms the parties’ intent and agreement to grant an exclusive license to Mayo’s certain patent rights and a nonexclusive license to certain know-how along with Amendment No. 1, Amendment No. 2, and Amendment No. 3 to the Agreement. Mayo and Company agree that there is no need to amend Exhibit C listing the proprietary research tools. Mayo and Company wish to amend the Agreement as set forth in this Amendment No. 4, and, accordingly, Mayo and Company agree as follows:

AMENDED TERMS

1. Exhibit A in its entirety will be deleted and replaced with the exhibit attached to this Amendment No. 4.

All other terms of the Agreement and Amendment No. 3 shall remain in full force and effect for the term of the Agreement and as set forth in the Agreement.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

IN WITNESS WHEREOF, Mayo and Company hereby enter into this Amendment No. 4, effective as of the date first set forth above.

Unity Biotechnology, Inc.

Mayo Foundation for Medical Education and Research

By: /s/ Nathaniel E. David

By: /s/ Daniel D. Estes

Name: Daniel D. Estes

Title: Assistant Treasurer

*** Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT A

PATENT RIGHTS

[*]**

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Unity Biotechnology
3280 Bayshore Blvd., Suite 100
Brisbane, CA 94005

September 15, 2016

Mayo Foundation for Medical Education and Research
200 First Street SW
Rochester, MN 55905
Attn: Daniel D. Estes

re: *Addendum to Amendment 4 to Exclusive License Agreement*

Dear Daniel:

As you know, Mayo Foundation for Medical Education and Research (“Mayo”) and Unity Biotechnology, Inc. (“Unity”) are parties to an Exclusive License Agreement (“Agreement”), effective as of June 28, 2013. Pursuant to Section 2.2 of the Agreement, Mayo granted to Unity an option to include within the licenses granted under the Agreement any “Additional Developments” (as defined in the Agreement) developed during the IP Capture Period (as defined in the Agreement). In connection with the grant of such option, Mayo further agreed to promptly notify Unity in writing of all Additional Inventions developed by Mayo personnel during the IP Capture Period and to provide Unity with a suitable description of such Additional Invention together with such other information as Unity may reasonably request for purposes of enabling Unity to assess its interest in such Additional Developments.

As requested by Mayo, Unity is providing this letter to confirm that it has received timely notice of the Additional Inventions listed in Appendix A hereto (each such additional Invention identified by Mayo’s designated case number) and to provide a summary of which Additional Inventions it has elected to license, which it has declined to license and which Additional Inventions are still under consideration. Appendix A indicates with respect to each Additional Invention whether 1) Unity will be declining a license 2) Unity is exercising its option to a license, or 3) Unity would like to learn more about the Additional Invention from the Mayo innovators before deciding whether to exercise its option. Additionally, as requested by Mayo, Appendix A, also lists those patent applications that have been filed as of the current date for those Additional Inventions exercised under the option.

If Mayo is in agreement with the summary provided in Appendix A, we ask that you please so indicate by signing below and kindly returning a copy of this letter to me. A duplicate original is enclosed for your records. If you have any questions or comments, please do not hesitate to contact me at [***] or by e-mail at [***]. Thank you.

Sincerely,

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

/s/ Nathaniel E. David

Nathaniel E. David, Ph.D.

CEO

Unity Biotechnology, Inc.

Agreed and accepted:

Mayo Foundation for Medical Education and Research

/s/ Daniel D. Estes

Name: Daniel D. Estes

Title: Assistant Treasurer

Date: 9-23-2016

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

APPENDIX A

*** Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

AMENDMENT NO. 5 TO EXCLUSIVE LICENSE AGREEMENT

THIS Amendment No.5 to Exclusive License Agreement (“Amendment 5”) is made and entered into this 12th day of October, 2016 (“Effective Date of Amendment 5”), by and between the Mayo Foundation for Medical Education and Research (“Mayo”) having its principal place of business at 200 First Street SW, Rochester, MN 55905, and Unity Biotechnology, Inc., a Delaware corporation, having a place of business at 3280 Bayshore Blvd, Brisbane CA 94005 (“Company”), for purposes of confirming the parties’ intent and agreement as set forth herein.

BACKGROUND

WHEREAS, Mayo and Genexys, Inc. are parties to that certain Exclusive License Agreement, with an effective date of the 28th day of June, 2013 (“Agreement”), along with the first, second, third and fourth Amendments to the Agreement.

WHEREAS, Company is the successor in interest to Genexys, Inc.

WHEREAS, Mayo and Company have entered into a new exclusive license agreement of even date herewith (the “New License Agreement”), and in connection with the entry into such New License Agreement, Mayo and Company wish to amend the Agreement as set forth in this Amendment No. 5, and, accordingly, Mayo and Company agree as follows:

AMENDED TERMS

1. The following new definition is added as Section 1.29:

“New License Agreement” shall mean that certain Exclusive License Agreement entered into by Mayo and Company as of October 12th, 2016.

2. The following new sentence is added to the end of Section 3.2: “Notwithstanding the foregoing, annual minimum royalty payments made under the New License Agreement shall be fully creditable against annual minimum royalty payments due under this Section 3.2 and *vice versa*.”
3. The following new Subsection (c) is added after Subsection 3.3(b) and the prior Subsection 3.3(c) is hereinafter re-labeled as new Subsection 3.3(d) and the prior Subsection 3.3(d) is hereinafter re-labeled as new Subsection new Subsection 3.3(e):

(c) Notwithstanding anything to the contrary in this Section 3.3, in the event that the achievement of a development milestone event set forth in Section 3.3(a) would trigger a development milestone payment under both this Section 3.3 and Section 3.3 of the New License Agreement, then Company shall only be obligated to pay a single development milestone payment with respect to the achievement of such development milestone event, which payment shall be the higher of the applicable development milestone payment in this Agreement and the applicable development milestone payment in the New

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

License Agreement for such development milestone event. For purposes of clarity, it is understood that payment of a development milestone payment with respect to such development milestone event under the New License Agreement shall satisfy in full Licensee's payment obligations under this Section 3.3 with respect to such development milestone event so long as such development milestone payment actually paid to Mayo exceeds (or equals) the development milestone payment that would have been due to Mayo under this Agreement. Notwithstanding the foregoing, at such time as development milestones 1, 2 and 3 in Section 3.3 of the New License Agreement have been paid with respect to two products (as defined in Section 3.3 of the New License Agreement), then no further payments will be owed with respect to Licensed Products achieving development milestones 1, 2 and 3 under this Section 3.3. Similarly, at such time as milestone 4 of the New License Agreement has been paid six times, then no further payment will be owed with respect to Licensed Products achieving development milestone 4 under this Section 3.3.

4. The last paragraph of Section 3.4 which reads:

The foregoing sales milestones shall be payable once for each of the first two products (Licensed Products or Buck Licensed Products) to achieve the applicable sales thresholds. For clarity, Company's total payment obligations under this Section 3.4 shall in no event exceed [***] U.S. Dollars (\$[***]). Company agrees to promptly notify Mayo in writing of the occurrence of each of the foregoing milestones and the payment for such milestone shall be included with the royalty payment due for the calendar quarter in which such sales milestone was achieved.

is hereby relabeled as Subsection 3.4(e) and amended to read as follows:

(e) Certain Additional Terms.

- (i) The foregoing sales milestones shall be payable once for each of the first two products (Licensed Products or Buck Licensed Products) to achieve the applicable sales thresholds. For clarity, Company's total payment obligations under this Section 3.4 shall in no event exceed [***] U.S. Dollars (\$[***]). Company agrees to promptly notify Mayo in writing of the occurrence of each of the foregoing milestones and the payment for such milestone shall be included with the royalty payment due for the calendar quarter in which such sales milestone was achieved.
- (ii) Notwithstanding anything to the contrary in this Section 3.4, in the event that the achievement of a sales milestone event set forth in this Section 3.4 would trigger a sales milestone payment under both this Section 3.4 and Section 3.4 of the New License Agreement, then Company shall only be obligated to pay a single sales milestone payment with respect to the achievement of such sales milestone event, which payment shall be the higher of the applicable sales milestone payment in this Agreement and the applicable sales milestone payment in the New License Agreement for such sales milestone event. For purposes of clarity, it is understood that payment of a sales milestone payment with respect to such sales milestone event under the New License Agreement shall satisfy in full Licensee's payment obligations under this Section 3.4 with respect to such sales milestone event so long as such sales milestone payment actually paid to Mayo exceeds (or equals) the sales milestone payment that would have been due to Mayo under this Agreement. Notwithstanding the foregoing, at such time the

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sales milestones described in Section 3.4 of the New License Agreement have been paid with respect to the first two products (as defined in Section 3.4 of the New License Agreement) achieving the applicable sales thresholds, then no further payments will be owed under Section 3.4 of this Agreement with respect to subsequent Licensed Products achieving the applicable sales thresholds.”

5. Section 3.6(b) which reads:

(b) Single Royalty; Non-Royalty Sales. In the event that a Licensed Product or Buck Licensed Product would be subject to two or more of the royalty provisions in Sections 3.5 above (e.g., in the event a Licensed Product or Buck Licensed Product is covered by multiple Valid Claims, some of which are composition of matter claims and some of which are not), only a single royalty shall be paid to Mayo with respect to such Licensed Product or Buck Licensed Product, that royalty being the highest of the royalties applicable to such Licensed Product or Buck Licensed Product. It is understood that royalties under Section 3.5(c) shall only be payable with respect to Licensed Products or Buck Licensed Products whose sale would infringe a Valid Claim of the Licensed Patents or Buck Licensed Patents covering the composition of matter of such Licensed Product or Buck Licensed Product in the country for which such Licensed Product or Buck Licensed Product is sold. In no event shall more than one royalty be due hereunder with respect to any Licensed Product (or Buck Licensed Product) unit; nor shall a royalty be payable under this Article 3 with respect to sales of Licensed Products or Buck Licensed Products at cost for use in research and/or development, in clinical trials or as samples.

is hereby amended to read as follows;

(b) Single Royalty; Non-Royalty Sales.

- (i) In the event that a Licensed Product or Buck Licensed Product would be subject to two or more of the royalty provisions in Sections 3.5 above (e.g., in the event a Licensed Product or Buck Licensed Product is covered by multiple Valid Claims, some of which are composition of matter claims and some of which are not), only a single royalty shall be paid to Mayo with respect to such Licensed Product or Buck Licensed Product, that royalty being the highest of the royalties applicable to such Licensed Product or Buck Licensed Product.
- (ii) In the event that the sale of a particular Licensed Product that is subject to a running royalty obligation under Section 3.5 above is also subject to a running royalty under Section 3.5 of the New License Agreement, Company shall only be obligated to pay a single royalty with respect to the sale of such Licensed Product, which royalty shall be the higher of the applicable royalty in this Agreement and the applicable royalty in the New License Agreement for such particular Licensed Product. For purposes of clarity, it is understood that payment of a royalty with respect to the sale of a particular Licensed Product under the New License Agreement shall satisfy in full Licensee’s royalty

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obligations under Section 3.5 with respect to such Licensed Product so long as such royalty actually paid to Mayo exceeds (or equals) the royalty that would have been due to Mayo under this Agreement.

- (iii) It is understood that royalties under Section 3.5(c) shall only be payable with respect to Licensed Products or Buck Licensed Products whose sale would infringe a Valid Claim of the Licensed Patents or Buck Licensed Patents covering the composition of matter of such Licensed Product or Buck Licensed Product in the country for which such Licensed Product or Buck Licensed Product is sold. In no event shall more than one royalty be due hereunder with respect to any Licensed Product (or Buck Licensed Product) unit; nor shall a royalty be payable under this Article 3 with respect to sales of Licensed Products or Buck Licensed Products at cost for use in research and/or development, in clinical trials or as samples.

6. The following new Subsection (ii) is added after Subsection 3.7(b)(i) and the prior Subsection 3.7(b)(ii) is hereinafter re-labeled as new Subsection 3.6(b)(iii):

(ii) in the event (A) Company grants a sublicense under the rights licensed to it pursuant to this Agreement as well as under the rights licensed to it pursuant to the New License Agreement, and (B) Net Sublicensing Income received under this Agreement is subject to a payment obligation under this Section 3.7 as well as Section 3.7 of the New License Agreement, Company shall only be subject to a single payment obligation with respect to such Net Sublicensing Income, which payment obligation shall be the higher of the payment obligation applicable to such Sublicense Revenue under this Section 3.7 and under Section 3.7 of New License Agreement. For purposes of clarity, it is understood that any amounts paid by Company to Mayo with respect to any given Net Sublicensing Income under the New License Agreement shall satisfy in full Company's payment obligations under this Section 3.7 with respect to such Net Sublicensing Income so long as the amount actually paid to Mayo exceeds (or equals) the amount that would have been due to Mayo under this Section 3.7; and

All other terms of the Agreement and the first Amendment shall remain in full force and effect for the term of the Agreement and as set forth in the Agreement.

IN WITNESS WHEREOF, Mayo and Company hereby enter into this Amendment [No. 3], effective as of the date first set forth above.

Unity Biotechnology, Inc.

Mayo Foundation for Medical Education and Research

By: /s/ Nathaniel David

By: /s/ Daniel D. Estes

Printed Name: Nathaniel David

Printed Name: Daniel D. Estes

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

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AMENDED AND RESTATED EXCLUSIVE LICENSE AGREEMENT

This Amended and Restated License Agreement (“Agreement”) is made as of the 27th day of January, 2017 (the “Signature Date”) by and between the Buck Institute for Research on Aging, a California non-profit public benefit corporation having its principal place of business at 8001 Redwood Boulevard, Novato, California 94945 (“Buck”), and Unity Biotechnology, Inc., a Delaware corporation, having a place of business at 3280 Brisbane Blvd, Brisbane, California 94005 (“Sponsor”).

BACKGROUND

- A. Sponsor’s predecessor, Cenexys, Inc. (“Cenexys”) and Buck previously entered into that certain License Agreement dated February 3, 2014 (the “Prior License Agreement”) pursuant to which Buck granted to Cenexys an exclusive license to certain “Patent Rights” and “Know-How” (all as defined in the Prior License Agreement).
- B. Buck and Cenexys have also previously entered into a Sponsored Research Agreement, effective as of August 21, 2014, pursuant to which Sponsor funded certain research conducted in the laboratory of Dr. Judith Campisi (“Campisi”) at Buck (the “Campisi Research Agreement”) in exchange for an option to include within the Prior License Agreement inventions arising from such funded research.
- C. Cenexys entered into a similar licensing and funded research arrangement with the Mayo Foundation for Medical Education and Research (“Mayo”), executing an Exclusive License Agreement with Mayo effective June 28, 2013, and a sponsored research agreement with Mayo effective September 25, 2014 (the “Mayo Research Agreement”);
- D. Sponsor now desires to fund research in the laboratory of Buck faculty member Dr. Simon Melov (“Melov”) and in furtherance of this objective Sponsor and Buck have entered into a Sponsored Research Agreement of even date herewith (the “Melov Research Agreement”);
- E. In connection with their entry into the Melov Research Agreement, Sponsor and Buck desire to amend and restate the Prior License Agreement to provide for the inclusion within the licenses granted thereunder rights to inventions with respect to which Sponsor has exercised its option under Section 7.6.1 of the Melov Research Agreement;
- F. The research conducted by Mayo under the Mayo Research Agreement and by Buck under the Campisi Research Agreement and Melov Research Agreement (collectively, “Buck Research Agreements”) is collaborative, such that information and results generated by each of Mayo and Buck may be shared with each of Buck and Mayo, and Mayo may be provided with access to the Know-How; and
- G. Because of the collaborative nature of the research, Sponsor has agreed that Buck will share in revenues resulting from Know-How Products and Patent Products (each as defined below), including Know-How Products and Patent Products that have been identified or developed by Mayo instead of by Buck.

NOW, THEREFORE, in consideration of the mutual covenants and promises herein contained, the parties hereto agree as follows:

ARTICLE 1
DEFINITIONS

As used in this Agreement, the following capitalized terms shall have the meanings indicated:

1.1 “Additional Inventions” shall mean discoveries and inventions that (i) are developed in the laboratory of Dr. Judith Campisi at Buck during the IP Capture Period, and (ii) are necessary or reasonably useful for the development, manufacture or commercialization of Licensed Products within the Field, excluding inventions generated pursuant to the Campisi Research Agreement and subject to the terms thereof.

1.2 “Affiliate” shall mean any entity which controls, is controlled by or is under common control with Sponsor. An entity shall be regarded as in control of another entity for purposes of this definition if it owns or controls more than fifty percent (50%) of the shares of the subject entity entitled to vote in the election of directors (or, in the case of an entity that is not a corporation, for the election of the corresponding managing authority).

1.3 “Commercially Reasonable Efforts” means those efforts and diligence (including with respect to the allocation of resources and personnel) consistent with the reasonable efforts and diligence that would be typically exerted by a biotechnology or pharmaceutical company in a similar circumstance in pursuing the research, development, and commercialization of products of similar nature and comparable market potential.

1.4 “Effective Date” shall mean February 3, 2014.

1.5 “EMA” shall mean the European Medicines Agency or any successor agency thereto.

1.6 “FDA” shall mean the United States Food and Drug Administration or any successor agency thereto.

1.7 “Field” shall mean (a) the prophylaxis, treatment, modulation or palliation of diseases or conditions through (i) the clearance or killing of senescent cells, or (ii) the inhibition or modulation of the deleterious effects of senescent cells, and (b) the prediction, diagnosis, monitoring and tracking of diseases or conditions being prevented, treated, modulated or inhibited pursuant to subsection (a) above.

1.8 “First Commercial Sale” means, with respect to a Licensed Product, the first sale of such product by Sponsor, its Affiliates or its Sublicensees to a third party following approval of an MAA by the applicable Regulatory Authority in the country or territory of sale.

-2-

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

1.9 “GAAP” shall mean the conventions, rules and procedures that define accounting practices as established, and revised or amended, by the Financial Accounting Standards Board and the U.S. Securities Exchange Commission.

1.10 “IP Capture Period” shall mean the period commencing on [***] and continuing until [***].

1.11 “Know-How” shall mean all technical information, know-how, processes, procedures, compositions, methods, techniques, or data that has been generated (a) by Buck personnel in the Campisi laboratory prior to the Effective Date (“Existing Know-How”), (b) by Buck personnel in the Campisi laboratory and/or the Melov laboratory during and in the course of performing research activities under the Buck Research Agreements (“Research Agreement Know-How”) or (c) otherwise by Buck personnel in the Campisi laboratory during the IP Capture Period (“Additional Know-How”), in each case that are necessary for the development or commercialization of Licensed Products. For the avoidance of doubt, Know-How does not include any information, know-how, processes, procedures, methods, techniques, or data that has been or is generated by any personnel of Buck outside of the Campisi and Melov laboratories at Buck.

1.12 “Know-How Product” shall mean any Licensed Product that (a) incorporates Know-How or whose discovery or use was enabled by Sponsor’s use of Know-How, or (b) meets the definition of “Know-How Product” under the Mayo License as the same exists as of the Effective Date, and in each case is not a Patent Product.

1.13 “Licensed Product” shall mean a product, composition or material for use in the Field.

1.14 “Licensed Subject Matter” shall mean the Patent Rights and the Know-How.

1.15 “Mayo Patent Rights” shall mean all patent applications and patents including, without limitation, all divisions, continuations, continuations-in-part, patents of addition, and substitutions, registrations, reissues, reexaminations or extensions of any kind with respect to any of the foregoing patent applications and patents, that are licensed to Sponsor or Sponsor’s Affiliates by Mayo under the Mayo License Agreement.

1.16 “MAA” (Marketing Approval Application) shall mean a new drug application filed with the FDA as more fully defined in 21 C.F.R. §314.50 et. seq., or similar application or submission filed with or submitted to any Regulatory Authority to obtain permission to initiate marketing and sales of a Know-How Product or Patent Product for a particular indication. An MAA shall be deemed to be “accepted” if it has been accepted for substantive review by the FDA or other applicable Regulatory Authority.

1.17 “MHLW” means Japan’s Ministry of Health, Labor and Welfare (also known as “Koroshō”) or any successor agency thereto.

-3-

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

1.18 “Net Sales” shall mean the total amount invoiced to third parties (or, in the absence of an invoice, received by Sponsor) on sales of Royalty Products by Sponsor, its Affiliates, or Sublicensees, for which royalties are due under Article 3 below, less the following reasonable and customary deductions actually given: (i) all trade, cash and quantity credits, discounts, refunds or government rebates; (ii) amounts for claims, allowances or credits for returns, retroactive price reductions, or chargebacks; (iii) packaging, handling fees and prepaid freight, sales taxes, duties and other governmental charges (including value added tax), shown on the face of the invoice; and (iv) provisions for uncollectible accounts determined in accordance with GAAP, consistently applied to all products of the selling party, provided that in no event shall deductions for uncollectible accounts in any annual period exceed [***] percent ([***]%) of the cumulative Net Sales in such annual period. In the event that Sponsor and a third party enter into a barter transaction pursuant to which Sponsor transfers Royalty Products to such third party in exchange for non-cash consideration provided in lieu of cash, then Net Sales shall be calculated based on the fair market value of the non-cash consideration received, provided that in no event shall the transferred Royalty Products be valued at more than the then-current customary sales price for such Royalty Products invoiced to third parties or fair market value if there are no current invoices to third parties. For the removal of doubt, Net Sales shall not include sales by Sponsor to its Affiliates for resale, provided that if Sponsor transfers a Royalty Product to an Affiliate, and the Affiliate retransfers such Royalty Product to a third-party purchaser, then Net Sales shall be the price charged by the Affiliate to the third-party purchaser, less documented allowable deductions.

1.19 “Net Sublicensing Income” shall mean gross cash revenues (or the fair market value of any other consideration received in lieu of a cash payment, including, without limitation, securities, materials and equipment) received by Sponsor or its Affiliates from a Sublicensee in consideration of the grant to such Sublicensee of a sublicense under any of the Licensed Subject Matter, but excluding earned royalties and any other share of net sales (including revenue sharing and profit payments). Net Sublicensing Income shall include without limitation any license signing fee, license maintenance fee, minimum royalty payments (but only to the extent not credited against royalties due on Sublicensee’s sales of Royalty Products) or milestone payment, and any consideration received for an investment in equity (and conditional equity, such as warrants, convertible debt) of Sponsor to the extent such consideration exceeds the fair market value of such equity or other conditional equity. Not included in the definition of Net Sublicensing Income is income received by Sponsor or its Affiliates: (a) as *bona fide* loans; (b) from equity investments (and conditional equity, such as warrants, convertible debt) in Sponsor at market value; (c) as reimbursements for actual documented patent prosecution costs and patent maintenance expenses; (d) as payment or reimbursement for research and development and/or other services conducted by or for Sponsor, including costs of materials, equipment, manufacturing services or clinical testing, e.g., provided on the basis of full-time equivalent (“FTE”) efforts of personnel at or below commercially reasonable and standard FTE rates (“FTE Reimbursements”) and/or the reimbursement of out-of-pocket expenses; and (e) income to Sponsor from a Sublicensee for commercial manufacturing of goods if such goods are intended for resale to third parties and the revenue derived from sales of such goods will be treated as Net Sales and subject to an earned royalty due to Buck. In addition, Sponsor shall have the right to deduct from Net Sublicensing Income withholding taxes and other taxes, duties and similar amounts owing with respect to payments included within Net Sublicensing Income, but excluding what are commonly referred to as income taxes.

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1.20 “Patent Product” shall mean a Licensed Product (a)(i) the manufacture, sale or use of which would but for the license granted herein, infringe a Valid Claim of the Patent Rights, or (ii) whose discovery or development was enabled by the use of a Proprietary Research Tool (a “Tool Product”), or (b) that meets the definition of “Patent Product” under the Mayo License as the same exists as of the Effective Date.

1.21 “Patent Rights” shall mean any and all rights in and to:

(a) all patents and patent applications listed in Exhibit A hereto together with any other patents and patent applications developed in the laboratory of Dr. Judith Campisi at Buck that are owned or controlled by Buck as of the Effective Date and that claim inventions claimed or disclosed in the patent(s) and patent application(s) on Exhibit A (collectively, the “Existing Patents”); and

(b) all patents and patent applications claiming inventions developed pursuant to Campisi Research Agreement for which Sponsor exercises its option thereunder (“Campisi Research Agreement Patents”); and

(c) all patents and patent applications claiming inventions developed pursuant to Melov Research Agreement for which Sponsor exercises its option under Section 7.6.2 thereof (“Melov Research Agreement Patents”); and

(d) all patents and patent applications claiming Additional Inventions with respect to which Sponsor exercised its option pursuant to Section 2.2 (“Additional Invention Patents”); and

(e) all divisions, continuations, continuations-in-part (to the extent entitled to the priority date of any of the Existing Patents, Research Agreement Patents, or Additional Invention Patents), patents of addition, and substitutions of the Existing Patents or Research Agreement Patents, or Additional Invention Patents together with all registrations, reissues, reexaminations or extensions of any kind with respect to any of the foregoing patents; and

(f) all counterparts, including supplemental protection certificates, to any of the Existing Patents, Research Agreement Patents, or Additional Invention Patents issued by or filed in any country or jurisdiction other than the United States.

In the event that Buck and Sponsor are joint owners of an invention by reason of the fact that personnel of both Buck and Sponsor are joint inventors of such invention, it is understood that the Patent Rights include only Buck’s rights as a joint owner of the patent applications and patents that claim such joint invention.

1.22 “Phase I Clinical Study” shall mean any study in humans the principal purpose of which is preliminary determination of safety in healthy individuals or patients as described under 21 C.F.R. §312.21(a) with respect to the United States, or, with respect to a jurisdiction other than the United States, a similar clinical study, in each case which shall be deemed commenced when the first participant in such study has received his or her initial dose of a Licensed Product.

1.23 “Phase II Clinical Study” shall mean a preliminary efficacy and dose ranging human clinical study of a Licensed Product in the target patient population, as described under 21 C.F.R. §312.21(b) with respect to the United States, or, with respect to a jurisdiction other than the United States, a similar clinical study, in each case which shall be deemed commenced when the first subject in such study has received his or her initial dose of such Licensed Product.

1.24 “Phase III Clinical Study” shall mean a human clinical study designed as a pivotal study to confirm with statistical significance the efficacy and safety of a Licensed Product with respect to a given indication, which study is performed for purposes of filing an MAA for such Product for such indication as described under 21 C.F.R. §312.21(c) with respect to the United States, or, with respect to a jurisdiction other than the United States, a similar clinical study, in each case which shall be deemed commenced when the first subject in such study has received his or her initial dose of such Licensed Product.

1.25 “Proprietary Research Tool” shall mean (a) a Research Tool existing as of the Effective Date and listed on Exhibit C, and (b) any future Research Tool used to discover or develop Patent Products and which Sponsor elects to designate as a Proprietary Research Tool pursuant to Section 2.4.

1.26 “Proprietary Research Tool Patents” shall mean the Patent Rights claiming the Proprietary Research Tools. A list of the Proprietary Research Tool Patents existing as of the Effective Date and organized by the Proprietary Research Tool which they cover, is attached hereto as Exhibit C.

1.27 “Regulatory Authority” means a federal, national, multinational, state, provincial or local regulatory agency, department, bureau or other governmental entity with authority over the discovery, development, commercialization or other use or exploitation (including review and approval of MAAs) of pharmaceutical products in any jurisdiction, including the FDA, EMA, and the MHLW.

1.28 “Research Agreement Patents” means the Campisi Research Agreement Patents and the Melov Research Agreement Patents.

1.29 “Research Tool” means animal models (e.g., a transgenic mouse), cell lines, monoclonal antibodies, research assays and reagents, cloning tools, and similar materials whose primary utility is in the conduct of basic scientific research.

1.30 “Research Tool Patent Claim” shall mean a claim of a Research Agreement Patent or Additional Invention Patent that claims a Research Tool that has not been designated as a Proprietary Research Tool by Sponsor pursuant to Section 2.4.

1.31 “Royalty Product” shall mean a Patent Product or a Know-How Product

1.32 “Sublicensee” shall mean any non-Affiliate third party to whom Sponsor has granted the right to promote, market and sell Royalty Products pursuant to Section 2.3, and “Sublicense” shall mean an agreement or arrangement between Sponsor and a Sublicensee granting such rights. As used in this Agreement, “Sublicensee” shall not include (i) wholesalers or (ii) any resellers of Royalty Product(s) that do not market and promote such Royalty Product(s).

1.33 “Valid Claim” shall mean a claim of an issued and unexpired patent or a claim of a pending patent application which has not been held unpatentable, invalid or unenforceable by a court or other government agency of competent jurisdiction and has not been admitted to be invalid or unenforceable through reissue, re-examination, disclaimer or otherwise; provided, however, that if the holding of such court or agency is later reversed by a court or agency with overriding authority, the claim shall be reinstated as a Valid Claim with respect to Net Sales made after the date of such reversal. Notwithstanding the foregoing provisions of this Section 1.33, if a claim of a pending patent application within the Patent Rights has not issued as a claim of an issued patent within the Patent Rights, within seven (7) years after the filing date from which such claim takes priority, such pending claim shall not be a Valid Claim for purposes of this Agreement.

ARTICLE 2 **LICENSE**

2.1 License Grants.

(a) Subject to the terms and conditions of this Agreement, including Sections 2.2, 2.5 and 2.6 below, Buck hereby grants to Sponsor a worldwide, royalty-bearing, exclusive license, with the right to sublicense solely in accordance with Section 2.3, under the Patent Rights (excluding the Research Tool Patent Claims), the Research Agreement Know-How and the Proprietary Research Tools to: (i) develop, make, use, sell, import, export or otherwise distribute Royalty Products, and (ii) practice any method, process or procedure covered or claimed by such Patent Rights or included in the Research Agreement Know-How, including the use of Proprietary Research Tools to discover Royalty Products, in each case solely within the Field.

(b) Subject to the terms and conditions of this Agreement, Buck hereby grants to Sponsor a worldwide, royalty-bearing, non-exclusive license, with the right to sublicense solely in accordance with Section 2.3, under the Research Tool Patent Claims, the Existing Know-How and the Additional Know-How solely to (i) develop, make, use, sell, import, export or otherwise distribute Royalty Products, and (ii) practice any method, process or procedure included in the Research Tool Patent Claims, the Existing Know-How and the Additional Know-How, in each case solely within the Field.

2.2 Option to Additional Inventions.

(a) Subject to the terms of this Section 2.2, Sponsor shall have an option to include within the license granted to Sponsor under Section 2.1 above, all worldwide patent rights owned or controlled by Buck with respect to Additional Inventions, in each case provided that the inclusion of such rights within the license granted to Sponsor under Section 2.1 above would not (in the reasoned legal opinion of Buck’s legal counsel) result in (i) a violation of the terms of any pre-existing written agreement between Buck and any third party, or (ii) the loss of Buck’s ability to issue or maintain tax-exempt bonds under the 1986 Tax Reform Act.

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(b) Buck shall notify Sponsor promptly in writing of all Additional Inventions and shall provide Sponsor with a suitable description and other information reasonably requested by Sponsor for the purpose of evaluating such Additional Inventions for purposes of its option (such notice and accompanying information, an “Invention Disclosure”).

(c) To exercise its option with respect to a particular Additional Invention, Sponsor shall so notify Buck within ninety (90) days after receiving from Buck a reasonably complete Invention Disclosure of its option exercise for such invention. Following such exercise, all patent applications and/or patents owned or controlled by Buck directed to such invention shall, to extent such rights are not ineligible (pursuant to Section 2.2(a)(i) or (ii) above) for inclusion within the license granted to Sponsor under Section 2.1, be deemed included within the Patent Rights.

(d) In the event that a question arises as to whether a particular discovery or invention is necessary or reasonably useful for the development, manufacture or commercialization of Licensed Products within the Field, the Parties agree that the Buck Head of Business Development shall have the right to make the final decision on such matter, and in the event that the Buck Head of Business Development determines that such discovery or invention is not in fact necessary or reasonably useful for the development, manufacture or commercialization of Licensed Products within the Field, such discovery or invention shall not be considered an “Additional Invention” and shall not be subject to Sponsor’s option under this Section 2.2.

2.3 Sublicenses. Sponsor may grant and authorize sublicenses within the scope of the license granted to Sponsor pursuant to this Agreement, provided that: (i) Sponsor promptly discloses to Buck the identity of the Sublicensee and delivers a true and correct copy of each sublicense granted by Sponsor as permitted herein, and any modification or termination thereof, within thirty (30) days after execution, modification, or termination (which copy may only be redacted to delete information not relevant to determining whether such sublicense is consistent with the provisions of this Agreement); (ii) Sponsor ensures that all sublicenses granted by Sponsor hereunder are consistent with the terms and conditions of this Agreement and include provisions substantially identical to Sections 2.5 and 2.6, and Articles 10 and 11 with the Sublicensee in place of Sponsor; and (iii) Sponsor is responsible for the activities of such Sublicensees with respect to the Licensed Subject Matter and the Licensed Products as if the activities were carried out by Sponsor, including the payment of royalties due to Buck hereunder, whether or not such amounts are paid to Sponsor by a Sublicensee.

2.4 Designation of Additional Proprietary Research Tools.

(a) Sponsor shall have the right upon written notice to Buck to designate any Research Tool arising under the Buck Research Agreements, or subject to Section 2.2, an Additional Invention that is a Research Tool, as a Proprietary Research Tool, in which case all patents and patent applications owned or controlled by Buck and directed to such Research Tool shall thereafter be deemed Proprietary Research Tool Patents and such Research Tool, together with all patents and patent applications directed thereto, shall be exclusively licensed to Sponsor.

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(b) To exercise its option to designate a particular Research Tool as a Proprietary Research Tool, Sponsor shall provide Buck with written notice of such election at the time it exercises its option under the Campisi Research Agreement, Melov Research Agreement or Section 2.2 above, as applicable, to include such Research Tool within the licenses granted to Sponsor under Section 2.1 above.

2.5 Retained Rights. Buck hereby retains a non-exclusive, non-transferrable right under the Patent Rights to (a) use and practice the Patent Rights for its own educational and non-commercial research purposes; and (b) perform its research activities under the Buck Research Agreements.

2.6 Governmental Rights. The parties understand that the Licensed Subject Matter may have been developed under a funding agreement with the Government of the United States and, if so, that the Government may have certain rights relative thereto under 35 U.S.C. §§ 200 *et seq.* Buck represents and warrants that it (i) has complied and agrees to continue to comply during the term of this Agreement with all laws and regulations applicable to such a Government funding agreement and (ii) has done and will continue to do all acts necessary for the protection of Buck's rights to retain ownership of all inventions within the Licensed Subject Matter, including disclosing subject inventions to the Government and electing to retain title in subject inventions.

2.7 No Implied Licenses. Nothing herein shall be construed as granting Sponsor, by implication, estoppel or otherwise, any license or other right to any intellectual property of Buck other than the Licensed Subject Matter or to grant to Sponsor any right or license other than those expressly granted herein.

2.8 Covenant. Sponsor covenants that it will not use or practice the Licensed Subject Matter except for the purposes expressly permitted in the applicable license grant in this Article 2.

ARTICLE 3 **PAYMENTS AND REPORTS**

3.1 Equity. In consideration for the rights and licenses granted by Buck to Sponsor herein, Sponsor shall, within thirty (30) days of the Effective Date and subject to Buck's execution and delivery to Sponsor of a Stock Purchase Agreement in substantially the form attached hereto as Exhibit B, issue to Buck Three Hundred Ninety Thousand (390,000) shares of Sponsor Common Stock promptly following the Effective Date.

3.2 Minimum Annual Royalty Payments. As further consideration for the rights and licenses granted by Buck to Sponsor herein, Sponsor shall pay to Buck an annual minimum royalty of [***] U.S. Dollars (\$[***]). The first annual minimum royalty payment shall be due within thirty (30) days of the fourth (4th) anniversary of the Effective Date, with subsequent annual minimum royalty payments being due within thirty (30) days of each subsequent anniversary of the Effective Date until the expiration (or, if applicable, the earlier termination) of this Agreement. Annual minimum royalty payments shall be non-refundable but shall be creditable against milestones owed under Section 3.3, running royalties accrued under Section 3.5 and sublicensing fees owed under Section 3.7, in each case that have been accrued and paid during the preceding one (1) year period.

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3.3 Development Milestone Payments.

(a) In consideration for the rights and licenses granted by Buck to Sponsor herein, Sponsor agrees to pay to Buck the following payments upon the occurrence of each milestone specified below:

<u>Development Milestone Event</u>	<u>Development Milestone Payment</u>
1. Commencement of a Phase I Clinical Study for a Royalty Product	\$[***]
2. Commencement of a Phase II Clinical Study for a Royalty Product	\$[***]
3. Commencement of a Phase III Clinical Study for a Royalty Product	\$[***]
4. Acceptance of filing of an MAA by the FDA, EMA, or MHLW for a Royalty Product	\$[***]

(b) Development milestones 1-3 as set forth in Section 3.3(a) shall be payable once each for the first two (2) Royalty Products to achieve the applicable milestone event. Milestone 4 shall be payable up to three (3) times for each of the first two (2) Royalty Products (i.e., once per MAA filed and accepted for review by the Regulatory Authority in each of the first three distinct jurisdictions in which an MAA is filed), for an aggregate of up to six (6) payments total. For clarity, Sponsor's total payment obligations under this Section 3.3 shall in no event exceed [***] U.S. Dollars (\$[***]) (i.e., up to an aggregate total of \$[***] under development milestones 1-3 and up to an aggregate total of \$[***] under development milestone 4).

(c) Sponsor agrees to promptly notify Buck in writing of the occurrence of each of the foregoing milestones and the payment for such milestone shall be due within thirty (30) days of occurrence thereof. All development milestone payments shall be non-refundable and non-creditable, and shall be payable in addition to the sales milestones, royalties and other payments due under this Agreement. If, for whatever reason, a particular development milestone for which a milestone payment is due is not achieved then, in such case, the milestone payment that Buck would have received upon the occurrence of such milestone event for the applicable Royalty Product had the particular development milestone event been achieved shall be paid on the occurrence of the next development milestone event for which a milestone payment is due for such Royalty Product, which payment shall be paid in addition to, and not instead of, the milestone payment that is to be paid to Buck upon the occurrence of the next development milestone event.

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3.4 Sales Milestones. In further consideration of the rights and licenses granted by Buck to Sponsor herein, Sponsor shall pay Buck the following milestone payments upon achievement of the corresponding sales milestones:

- (a) Upon first achieving aggregate Net Sales of a Royalty Product equal to or exceeding [***] U.S. Dollars (\$[***]), Sponsor shall pay Buck [***] U.S. Dollars (\$[***]);
- (b) Upon first achieving aggregate Net Sales of a Royalty Product equal to or exceeding [***] U.S. Dollars (\$[***]), Sponsor shall pay Buck [***] U.S. Dollars (\$[***]);
- (c) Upon first achieving aggregate Net Sales of a Royalty Product equal to or exceeding [***] U.S. Dollars (\$[***]), Sponsor shall pay Buck [***] U.S. Dollars (\$[***]);
- (d) Upon first achieving aggregate Net Sales of a Royalty Product equal to or exceeding [***] U.S. Dollars (\$[***]), Sponsor shall pay Buck [***] U.S. Dollars (\$[***]).

The foregoing sales milestones shall be payable once for each of the first two Royalty Products to achieve the applicable sales thresholds. For clarity, Sponsor's total payment obligations under this Section 3.4 shall in no event exceed [***] U.S. Dollars (\$[***]). Sponsor agrees to promptly notify Buck in writing of the occurrence of each of the foregoing milestones and the payment for such milestone shall be included with the royalty payment due for the calendar quarter in which such sales milestone was achieved. All sales milestone payments shall be non-refundable and non-creditable, and shall be payable in addition to the development milestones, royalties and other payments due under this Agreement.

3.5 Earned Royalty. As additional consideration of the rights and licenses granted by Buck to Sponsor herein, except as otherwise provided in this Article 3, Sponsor agrees to pay to Buck as running royalties a percentage of Net Sales as follows:

- (a) For Know-How Products: [***]% of annual Net Sales of Know-How Products;
- (b) For Patent Products for which there are no Valid Claims within the Patent Rights or the Mayo Patent Rights covering the composition of matter of the applicable Patent Product:

<u>Annual Net Sales of Patent Product</u>	<u>Applicable Royalty Rate</u>
Portion of worldwide annual Net Sales of such Patent Products less than or equal to [***] Dollars (US\$[***])	[***]%
Portion of worldwide annual Net Sales of such Patent Products over [***] Dollars (US\$[***])	[***]%

- (c) For Patent Products for which there is at least one Valid Claim within the Patent Rights or the Mayo Patent Rights covering the composition of matter of the applicable Patent Product:

<u>Annual Net Sales of Patent Product</u>	<u>Applicable Royalty Rate</u>
Portion of worldwide annual Net Sales of such Patent Products less than or equal to [***] Dollars (US\$[***])	[***]%
Portion of worldwide annual Net Sales of such Patent Products over [***] Dollars (US\$[***])	[***]%

3.6 Certain Additional Terms.

(a) Royalty Term.

(i) Buck's right to receive royalties under Section 3.5(c) above shall expire on a product-by-product and country-by-country basis upon the expiration of the last to expire Valid Claim in the Patent Rights or the Mayo Patent Rights covering the composition of matter of such Patent Product in such country. Thereafter, if there is also at least one Valid Claim within the Patent Rights or the Mayo Patent Rights covering the method of making or method of using the Licensed Product in such country and such Valid Claim is still in effect on the date on which the last-to-expire composition of matter claim expires in such country, Sponsor will pay royalties on such Licensed Product at the royalty rate applicable for Patent Products under Section 3.5(b) above until the date of expiration of the last-to-expire Valid Claim in the Patent Rights or the Mayo Patent Rights covering the method of making or method of using such Licensed Product in such country. If the last-to-expire Valid Claim in the Patent Rights or the Mayo Patent Rights covering the method of making or method of using such Licensed Product in such country expires prior to the earlier of (A) the 13th anniversary of the First Commercial Sale of the first Royalty Product anywhere in the world or (B) January 1, 2037, then to the extent that such Licensed Product satisfies the definition of a Know-How Product, Sponsor will, as of the date on which such claim expires, continue to pay royalties on such Licensed Product at the royalty rate under Section 3.5(a) until the earlier of (A) the 13th anniversary of the First Commercial Sale of the first Royalty Product anywhere in the world or (B) January 1, 2037. If there is no unexpired Valid Claim within the Patent Rights or the Mayo Patent Rights covering the method of making or method of using the Licensed Product as of the date of the last-to-expire composition of matter claim expires in such country, then to the extent that such Licensed Product satisfies the definition of a Know-How Product, Sponsor will to pay royalties on such Licensed Product at the royalty rate under Section 3.5(a) until the earlier of (1) the 13th anniversary of the First Commercial Sale of the first Royalty Product anywhere in the world or (2) January 1, 2037.

(ii) Buck's right to receive royalties under Section 3.5(b) above shall expire on a product-by-product and country-by-country basis upon the expiration of the last to expire Valid Claim in the Patent Rights or the Mayo Patent Rights covering such Patent Product in such country, provided that with respect to any Patent Product that is a Tool Product, Buck shall be entitled to continue to receive a royalty under Section 3.5(b) with respect to worldwide sales of such Patent Product until the expiration of the last to expire Valid Claim of the Proprietary Research Tool Patent(s) covering the Proprietary Research Tool(s) whose use enabled the discovery or development of such Patent Product. However, if Buck's right to receive royalties under the preceding sentence expires prior to the earlier of (A) the 13th

anniversary of the First Commercial Sale of the first Royalty Product anywhere in the world or (B) January 1, 2037, then to the extent that such Licensed Product satisfies the definition of a Know-How Product, Sponsor will, as of the date on which the last-to-expire Valid Claim covering such Patent Product in such country expires or, if applicable and if in effect longer than the last-to-expire Valid Claim covering such Patent Product, the last-to-expire Valid Claim of the applicable Proprietary Research Tool Patent, continue to pay royalties on such Licensed Product at the royalty rate under Section 3.5(a) until the earlier of (1) the 13th anniversary of the First Commercial Sale of the first Royalty Product anywhere in the world or (2) January 1, 2037.

(iii) Buck's right to receive royalties under Section 3.5(a) above for a Know-How Product shall expire on the earlier of (A) thirteen (13) years after the First Commercial Sale of the first Royalty Product anywhere in the world or (B) January 1, 2037. For clarity, in the event that a Licensed Product is not covered in a country by a Valid Claim of the Patent Rights or the Mayo Patent Rights but does meet the definition of a Know-How Product, then Buck's right to receive royalties under Section 3.5(a) above shall expire on the earlier of the thirteen (13) year anniversary of the First Commercial Sale of the first Royalty Product anywhere in the world or January 1, 2037.

(b) Products Developed Post-Termination; Products Developed Post-Acquisition. Notwithstanding anything to the contrary in this Agreement:

(i) in the event that Sponsor elects to permissively terminate this Agreement pursuant to Section 8.3, any product Discovered by or on behalf of Sponsor following the second anniversary of the effective date of such termination shall not be subject to the payment obligations set forth in Section 3.3-3.5 provided that Sponsor has complied with its obligations under Section 8.4(b)(i) regarding the return to Buck of all Confidential Information of Buck. For clarity, any product Discovered by or on behalf of Sponsor (A) prior to the second anniversary of the effective date of such termination, or (B) during any time period following the effective date of such termination in which Sponsor is not in compliance with its obligations under Section 8.4(b)(i), shall to the extent such product satisfies the definition of "Know-How Product" (i.e., is a product for use in the Field that incorporates Know-How or was discovered through Sponsor's use of Know-How), be subject to the payment obligations set forth in Section 3.3-3.5 as if such product were discovered during the Term;

(ii) in the event of an acquisition, merger or consolidation ("Acquisition") of Sponsor by or with a third party ("Acquirer"), no payments will be owed under Section 3.3, 3.4, 3.5 and 3.7 with respect to any products (A) owned or controlled by the Acquirer immediately prior to the effective date of such Acquisition, or (B) Discovered by Sponsor or such Acquirer following the date of such Acquisition. For clarity, the foregoing shall not limit Buck's rights to receive payments under Section 3.3, 3.4, 3.5 and 3.7 with respect to any product(s) Discovered by Buck during the performance of the Buck Research Agreements.

(iii) As used in this Section 3.6(b), a product will be deemed to have been "Discovered" upon the later of (A) the date the structure of the active pharmaceutical ingredient ("API") in such product is first determined, or (B) the date the activity of such API is first experimentally established in animal model by Sponsor, Buck or Mayo.

(c) Single Royalty; Non-Royalty Sales. In the event that a Licensed Product would be subject to two or more of the royalty provisions in Sections 3.5 above (e.g., in the event a Licensed Product is covered by multiple Valid Claims, some of which are composition of matter claims and some of which are not), only a single royalty shall be paid to Buck with respect to such Licensed Product, that royalty being the highest of the royalties applicable to such Licensed Product. It is understood that royalties under Section 3.5(c) shall only be payable with respect to Licensed Products whose sale would infringe a Valid Claim within the Patent Rights or the Mayo Patent Rights covering the composition of matter of such Licensed Product in the country for which such Licensed Product is sold. In no event shall more than one royalty be due hereunder with respect to any Licensed Product unit; nor shall a royalty be payable under this Article 3 with respect to sales of Licensed Products for use in research and/or development, in clinical trials or as samples.

(d) Multiple Royalties. If Sponsor, its Affiliate or Sublicensee is required to pay a non-Affiliate third party other than Mayo amounts with respect to a Licensed Product under agreements for patent rights or other technologies which Sponsor, its Affiliate or Sublicensee, in its best judgment, determines are necessary or desirable to license or acquire with respect to such Licensed Product, Sponsor may deduct such amount owing to such non-Affiliate third parties (prior to any reductions) from the royalty owing to Buck for the sale of such Licensed Product pursuant to Section 3.5 above. Notwithstanding the foregoing provisions of this Section 3.6, in no event shall the royalties due to Buck pursuant to Section 3.5 above be so reduced to less than:

(i) [***] percent ([***]%) of the amount that would otherwise be due to Buck with respect to Licensed Products subject to Sections 3.5(a) or 3.5(b); or

(ii) [***] percent ([***]%) of the amount that would otherwise be due to Buck with respect to Licensed Products subject to Section 3.5(c).

(e) Royalties on Mayo Licensed Products. Notwithstanding anything to the contrary in this Agreement, it is understood and agreed that any Licensed Product identified or developed solely by Mayo shall only be subject to milestone and royalty obligations under this Agreement if that product is subject to milestone and royalty obligations under the Mayo License Agreement as the same exists as of the Effective Date.

3.7 Sublicense Fees.

(a) Sponsor shall pay to Buck [***]% of the Net Sublicensing Income received by Sponsor or its Affiliates.

(b) Notwithstanding the foregoing:

(i) Sponsor shall only be obligated to pay to Buck [***] percent ([***]%) of that portion of the aggregate Net Sublicensing Income that exceeds the then current aggregate duly documented and verifiable amount spent by Sponsor on the development of Licensed Products as of the date such Net Sublicensing Income was received. For example, if Sponsor has spent \$100,000 on the development of Licensed Products and receives \$200,000 in Net Sublicensing Income, Sponsor shall only be obligated to pay to Buck \$[***]; and

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(ii) Sponsor's total payment obligations under this Section 3.7 shall be capped at [***] U.S. Dollars (\$[***]).

3.8 Combination Products. In the event that a Licensed Product is sold in combination with another product, component or service for which no royalty would be due hereunder if sold separately (a "Combination Product"), Net Sales from such combination sales for purposes of calculating the amounts due under this Article 3 shall be determined based on the proportionate list prices of such products, components or services if sold separately. If a product, component or service that is part of the Combination Product sold is not sold separately, then the "Net Sales" for the purpose of determining the royalty due shall be determined by multiplying the Net Sales of the Combination Product by a fraction that reasonably represents the relative contribution, to the total market value of such Combination Product, of the Licensed Product, where such fraction is determined by the parties in good faith on the basis of the fair market values of the contribution of each of the different products, components or services when included in the Combination Product.

3.9 Records. During the term of this Agreement, Sponsor and its Affiliates shall keep, and shall cause Sublicensees to keep, complete and accurate records of their Net Sales in sufficient detail to enable the amounts payable under this Article 3 to be determined. Sponsor will preserve, and will cause its Affiliates and Sublicensees to preserve, such records for at least three (3) years from the date of the payment to which they pertain. Upon Buck's written request, but not more frequently than once per calendar year, Sponsor shall permit representatives or agents of Buck to examine such records during Sponsor's regular business hours for the purpose of and to the extent necessary to verify any report required under this Agreement with respect to Net Sales received not more than three (3) years prior to the date of Buck's request. To the extent that Sponsor does not have the right to grant Buck the right to audit its Sublicensees' books and records hereunder, Sponsor shall obtain for itself such right and, at the request of Buck and at Buck's expense, Sponsor shall, through an independent third party acceptable to Buck, exercise such audit right with respect to Sublicensees and provide the results of such audit for inspection by Buck pursuant to this Section 3.9. In the event that the amounts due to Buck are determined to have been underpaid, Sponsor shall pay to Buck any amount due and unpaid, together with interest on such amount at the prime rate in effect at [***], or at the maximum rate permitted by law, whichever is lower, within thirty (30) days following the receipt of the audit results. Buck shall bear its own expenses in connection with any audits conducted by Buck's representatives or agents; provided, however, that if an error of more than [***] percent ([***]%) in favor of Sponsor or its Affiliates or Sublicensees is discovered, then such expenses shall be paid by Sponsor.

3.10 Reports. Beginning with the first accrual of Net Sales on which a royalty is due hereunder, Sponsor shall provide to Buck a quarterly royalty report as follows: Within sixty (60) days after the end of each calendar quarter, Sponsor shall deliver to Buck a true and accurate report, giving such particulars of the business conducted by Sponsor, its Affiliates and Sublicensees, if any, during such calendar quarter as are pertinent to account for royalties due

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under this Article 3. Such report shall include at least (i) the total of Net Sales during such quarter in sufficient detail on a Product-by Product and country-by-country basis to permit confirmation of the accuracy of the royalty payments due, including the number of Royalty Products sold, the gross sales of Royalty Products, and the deductions made from gross sales to determine Net Sales; (ii) the calculation of royalties; and (iii) the total royalties so calculated and due Buck. Simultaneously with the delivery of each such report, Sponsor shall pay to Buck the total royalties, if any, due to Buck for the period of such report. If no royalties are due, Sponsor shall so report. All information contained in reports provided to Buck under this Section 3.10, or learned by Buck under Section 3.9 above shall be Sponsor's Confidential Information.

3.11 Payments. All amounts payable hereunder by Sponsor shall be payable in United States Dollars. If any currency conversion of foreign currency sales into United States Dollars shall be required in connection with the payment of royalties hereunder, such conversion shall be made by using the exchange rates used by Sponsor in calculating Sponsor's own revenues for financial reporting purposes.

3.12 Exchange Control. If at any time legal restrictions prevent the prompt remittance of part or all of the royalties payable by Sponsor with respect to any country or territory where a Licensed Product is sold, Sponsor shall have the right, at its option, to make such payments by depositing the amount thereof in local currency to Buck's account in a bank or other depository in such country. If the royalty rate specified in this Agreement should exceed the permissible rate established in any country, the royalty rate for sales in such country shall be adjusted to the highest legally permissible or government-approved rate.

3.13 Late Payment. Any amounts not paid by Sponsor when due under this Agreement will be subject to interest from and including the date payment is due, up through and including the date upon which Buck has collected the funds in accordance herewith at a rate equal to the lesser of (i) the sum of [***] percent ([***]%) plus the prime rate of interest in effect at Bank of America NT&SA, San Francisco, California per annum, calculated daily, or (ii) the maximum interest rate allowed by law.

ARTICLE 4 **DATA ACCESS**

4.1 Promptly after the Effective Date, Buck shall, at Sponsor's request, provide to Sponsor all data, reports, analyses and other information in its possession or control that is within the Know-How. Subject to the provisions of Article 6 below, Sponsor will have the right to use all such data and materials for the purposes set forth in the license rights granted to it in Article 2, and to provide the same to third parties under obligations of confidentiality consistent with the obligations set forth in Article 6 and to Regulatory Authorities in connection with obtaining approvals to develop, market and/or commercialize Licensed Products. In addition, as reasonably requested by Sponsor from time to time, Buck shall deliver to Sponsor reasonable quantities of biological materials covered by the Licensed Subject Matter based on availability, provided that Sponsor shall bear Buck's costs of shipping such materials to Sponsor. Such materials shall be supplied to Sponsor by Buck on an "as is" basis under a material transfer agreement, the terms of which shall be substantially similar to the template material transfer

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agreement attached hereto as Exhibit D. Upon the termination of this Agreement, Sponsor shall, at Buck's option, either return to Buck any remaining biological materials provided to it by Buck hereunder or destroy such materials.

ARTICLE 5 **DUE DILIGENCE**

5.1 General Diligence Obligations. Sponsor shall use Commercially Reasonable Efforts to develop, file Marketing Authorization Applications for, commercialize and meet the market demand for one or more Royalty Products.

5.2 Failure. If Sponsor does not use Commercially Reasonable Efforts as provided for in Section 5.1, then Buck shall have the right to terminate this Agreement in its entirety for material breach in accordance with the procedures set forth in Section 8.2, or with the consent of Sponsor, to convert to non-exclusive, the license rights granted to Sponsor hereunder.

5.3 Reports. Within ninety (90) days following the end of each calendar year during the term of this Agreement, Sponsor shall prepare and deliver to Buck a written report which shall describe, in reasonable detail, the research performed during the previous year employing the Licensed Subject Matter or regarding Royalty Products, the progress of the development and exploitation of Licensed Subject Matter and Royalty Products during the previous year, and the research activities regarding the Licensed Subject Matter and Royalty Products planned for the current calendar year.

ARTICLE 6 **CONFIDENTIALITY**

6.1 Confidential Information. During the term of this Agreement and for a period of seven (7) years thereafter, and except as otherwise provided herein, each party shall maintain in confidence, and shall not use for any purpose or disclose to any third party, information of a confidential or proprietary nature that is disclosed by the other party that (a) if in written or other tangible form is marked "Confidential," "Proprietary" or in some other manner to indicate its confidential nature, or (b) that, given the nature of the information or the circumstances surrounding its disclosure, reasonably should be considered as confidential (collectively, "Confidential Information"). Confidential Information shall not include any information that is: (i) already known to the receiving party without obligations of confidentiality thereto at the time of disclosure hereunder as demonstrated by competent proof, or (ii) is or hereafter becomes publicly known other than through acts or omissions of the receiving party, or (iii) is disclosed to the receiving party without obligations of confidentiality by a third party under no obligation of confidentiality, whether direct or indirect, to the disclosing party, or (iv) is independently developed by the receiving party without reliance on or reference to the Confidential Information of the disclosing party, as demonstrated by competent proof. The party receiving a disclosing party's Confidential Information shall maintain such Confidential Information in confidence and shall disclose such Confidential Information only to its employees, agents, independent contractors, Affiliates, sublicensees, attorneys, accountants, and advisors who have a reasonable need to know such Confidential Information and who are bound by obligations of confidentiality and non-use no less restrictive than those set forth herein.

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6.2 Permitted Usage and Disclosure. Notwithstanding the provisions of Section 6.1 above, the receiving party may use Confidential Information of the disclosing party to the extent necessary to exercise its rights hereunder (including commercialization and/or sublicensing of Licensed Subject Matter) or fulfill its obligations and/or duties hereunder and in filing for, prosecuting or maintaining any proprietary rights, and may disclose such Confidential Information of the disclosing party (a) as required, in connection with the order of a court or other governmental body; (b) as required by or in compliance with laws or regulations; and (c) in the case of Sponsor, as required in the course of obtaining regulatory and necessary institutional approvals to clinically test, sell or market Licensed Products or to perform research and development with respect to the Licensed Products as permitted under this Agreement, provided that if the receiving party is required by law, regulation or order of a court or other governmental body to make any public disclosures of Confidential Information of the disclosing party, the receiving party will, to the extent it may legally do so, give reasonable advance notice to the disclosing party of such disclosure and will use its reasonable efforts to secure confidential treatment of Confidential Information prior to its disclosure (whether through protective orders or otherwise).

6.3 Residuals. Nothing in this Agreement shall restrict any employee or representative of Sponsor from using Know How retained in the unaided memory of such employee or representative following the termination of this Agreement. A person's memory is "unaided" if such person has not intentionally memorized the Confidential Information for the purpose of retaining and subsequently using or disclosing it.

ARTICLE 7

PATENTS AND INVENTIONS

7.1 Prosecution of Patent Rights. Buck shall, through patent counsel reasonably acceptable to Sponsor, direct and control the filing, prosecution and maintenance of all Patent Rights. For purposes of this Article 7, "prosecution and maintenance" of patents and patent applications shall be deemed to include, without limitation, the conduct of interferences or oppositions, and/or requests for re-examinations, reissues or extensions of patent terms. Buck shall provide Sponsor with (a) a copy of all patent applications within the Patent Rights prior to filing such application, allowing adequate time for review and comment by Sponsor unless it is impracticable; (b) copies of all material correspondence from any and all patent offices concerning any Patent Rights and, if applicable, an opportunity to comment on any proposed responses, voluntary amendments, and submissions of any kind to be made to any and all patent offices and (c) the right to directly consult with patent counsel. Buck and its patent counsel shall incorporate all reasonable comments provided by Sponsor under this Section 7.1.

7.2 Patent Costs. Sponsor acknowledges and agrees that the license granted hereunder is in partial consideration for Sponsor's assumption of the costs of prosecution and maintenance of the Patent Rights as described herein. Sponsor agrees to pay and shall pay for all reasonable out-of-pocket expenses incurred by Buck in connection with the prosecution and maintenance of the Patent Rights on or after the Effective Date (including the costs of reexamination, opposition and interference proceedings). In addition, on or before June 30, 2014 Sponsor shall reimburse Buck for all previously unreimbursed expenses incurred by Buck in connection with the

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prosecution and maintenance of the Existing Patent Rights prior to the Effective Date (“Past Patent Costs”), provided that Licensee’s payment obligations with respect to such Past Patent Costs shall in no event exceed \$[***]. If at any time Sponsor determines that it no longer desires to pay the patent costs with respect to one or more patents or patent applications within the Patent Rights, Sponsor shall give sixty (60) days advance written notice to Buck. Upon such notice, Buck shall use commercially reasonable efforts to minimize any additional patent costs, provided that Buck shall be free to continue the filing, prosecution, and/or maintenance of such applications(s) or patent(s) at its own expense. If Buck elects to exercise its back-up rights under the preceding sentence to file, prosecute or maintain any patent application or patent within the Patent Rights in a Major Country, Sponsor’s license with respect to such patent or patent application shall terminate in such country. For clarity, Sponsor shall not be obligated to pay for any corresponding patent costs incurred after the end of such sixty (60) day period (but shall remain responsible for all patent costs incurred prior to and during such sixty (60) day period). Sponsor will pay all undisputed invoices for patent expenses incurred in accordance with this Article 7 within thirty (30) days of receipt of an invoice from Buck. If Sponsor fails to pay any undisputed invoices with respect to one or more patents or patent applications within the Patent Rights, Sponsor’s license with respect to such patent or patent application shall terminate. As used in this Section 7.2, “Major Country,” shall mean the United States, Canada, United Kingdom, France, Germany, Italy, Spain, Australia and Japan.

ARTICLE 8

TERM AND TERMINATION

8.1 Term. Unless terminated earlier pursuant to this Article 8, the term of this Agreement shall commence on the Effective Date, and will continue in full force and effect until the expiration of Sponsor’s payment obligations hereunder, unless earlier terminated pursuant to Section 8.2 or 8.3 below. Sponsor’s license with respect to the Know-How shall survive the expiration (but not an earlier termination, except as provided in Section 8.4 below) of this Agreement and for clarity shall thereafter be fully paid-up, royalty free and irrevocable.

8.2 Termination for Breach. In the event of a material breach of this Agreement, the non-breaching party shall be entitled to terminate this Agreement by written notice to the breaching party, if such breach is not cured within sixty (60) days after written notice is given by the non-breaching party to the breaching party specifying the breach and requesting its cure. However, if the party alleged to be in breach of this Agreement disputes such breach within such sixty (60) day period, the non-breaching party shall not have the right to terminate this Agreement unless it has been determined by a court of competent jurisdiction that this Agreement was materially breached, and the breaching party fails to cure such breach within sixty (60) days after such determination.

8.3 Termination by Sponsor. Any provision herein notwithstanding, Sponsor may terminate this Agreement, in its entirety or as to any particular Licensed Product, at any time by giving Buck at least sixty (60) days prior written notice. From and after the effective date of a termination under this Section 8.3 with respect to a particular Licensed Product, the license granted under Section 2.1 above shall terminate with respect to such Licensed Product.

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8.4 Survival.

(a) Termination of this Agreement for any reason shall not release either party hereto from any liability which at the time of such termination has already accrued to the other party.

(b) In the event this Agreement is terminated for any reason:

(i) Sponsor and Buck shall each return to the other all Confidential Information they have received from the other party, provided that one (1) copy of such Confidential Information may be retained by the receiving party for the purpose of complying with continuing obligations under this Agreement.

(ii) Sponsor shall provide Buck with a written inventory of all Royalty Products that Sponsor and its Affiliates have in process of manufacture, in use or in stock and Sponsor and its Affiliates shall have the right to sell or otherwise dispose of such Royalty Products, all subject to the payment to Buck of royalties pursuant to Article 3 hereof.

(c) Upon termination of this Agreement by Buck for any reason, any sublicense granted by Sponsor hereunder shall survive, provided that upon request by Buck, such Sublicensee promptly agrees in writing to be bound by the applicable terms of this Agreement.

(d) Articles 1, 6, 10, 11 and 13 and Sections 8.4, 9.1 and 9.3 (with respect to any enforcement actions in progress at the time of termination), and 12.3 shall survive the expiration and any termination of this Agreement. Additionally, in the event Sponsor elects to permissively terminate this Agreement in its entirety pursuant to Section 8.3, all payment obligations of Sponsor under Sections 3.3, 3.4 and 3.5 with respect to Tool Products and Know-How Products Sponsor elects to continue to develop and commercialize after termination shall survive termination of this Agreement (and Sponsor's non-exclusive license under Section 2.1(b) shall survive with respect to such Tool Products and Know-How Products). Except as otherwise provided in this Article 8, all rights and obligations of the parties under this Agreement shall terminate upon the expiration or termination of this Agreement.

ARTICLE 9 INFRINGEMENT

9.1 Enforcement. If either party becomes aware of a suspected infringement of any of the Patent Rights, that party shall promptly notify the other party in writing and the parties will meet and confer.

(a) Sponsor shall have the first right (itself or through others), at its sole option and expense, to bring suit to enforce the Patent Rights, and/or to defend any declaratory judgment action with respect thereto, in each case with respect to the manufacture, sale or use of a product within the Field; provided, however, that Sponsor shall keep Buck reasonably informed as to the defense and/or settlement of such action. Buck shall have the right to participate in any such action with counsel of its own choice at its own expense. All recoveries received by Sponsor from an action to enforce the Patent Rights shall be first applied to

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reimburse Sponsor's and then Buck's unreimbursed expenses, including without limitation, reasonable attorney's fees and court costs. Any remainder shall, to the extent the same pertains to an infringement of the Patent Rights, be divided [***] percent ([***]%) to Sponsor and [***] percent ([***]%) to Buck, provided that Buck's portion shall not exceed the amount Buck would have received as a royalty hereunder if the infringing activities had been made by Sponsor.

(b) In the event Sponsor elects not to initiate an action to enforce the Patent Rights against a Third Party for infringement within the Field within six (6) months of a request by Buck to do so, (or within such shorter period which may be required to preserve the legal rights of Buck under the laws of the relevant government), Buck may with Sponsor's consent, which consent shall not be unreasonably withheld, initiate such action at its own expense, in its own name, and under its own direction and control. Sponsor shall have the right to participate in any such action with counsel of its own choice at its own expense. All recoveries received by Buck from any such action shall be first applied to reimburse Buck's and then Sponsor's unreimbursed expenses, including without limitation, reasonable attorney's fees and court costs. Any remainder shall, to the extent the same pertains to an infringement of the Patent Rights in the Field, be divided [***] percent ([***]%) to Sponsor and [***] percent ([***]%) to Buck.

(c) If the suspected infringement by a Third Party is not with respect to the manufacture, sale or use of a product within the Field, Buck will have the right, but not the obligation, to bring an infringement action at its own expense, in its own name, and entirely under its own direction and control.

9.2 Defense. If Sponsor, its Affiliate, Sublicensee, distributor or other customer is sued by a third party charging infringement of patent rights that dominate a claim of the Patent Rights or that cover other Related Material with respect to the manufacture, use, distribution or sale of a Royalty Product, Sponsor will promptly notify Buck. As between the parties to this Agreement, Sponsor will be entitled to control the defense in any such action(s). If Sponsor is required to pay any settlements or damages to a third party in connection with such infringement action, then an amount equal to [***] percent ([***]%) of the amount of such settlements or damages actually paid to such third party by Sponsor (or its Affiliate or Sublicensee) with respect to such alleged infringement shall be offset against the amount of royalties otherwise owed to Buck with respect to the applicable Royalty Product; provided that the effective royalty rate due to Buck under Section 3.5, taking into account such offset and any other royalty reduction provided for in Section 3.6, if applicable, shall not be reduced by more than [***] percent ([***]%) or the rates specified in Section 3.5.

9.3 Cooperation. In any suit, action or other proceeding in connection with enforcement and/or defense of the Patent Rights as permitted under this Article 8, Buck shall cooperate fully, including without limitation by joining as a party plaintiff and executing such documents as Sponsor may reasonably request. Upon the request of and, at the expense of the party enforcing or defending the Patent Rights, the other party shall make available at reasonable times and under appropriate conditions all relevant personnel, records, papers, information, samples, specimens and other similar materials in the other party's possession.

9.4 No Implied Obligations. Except as expressly provided in this Article 9, neither party has any obligation to bring or prosecute actions or suits against any third party for patent infringement.

ARTICLE 10
INDEMNIFICATION

Sponsor shall hold harmless, indemnify and defend Buck and its Affiliates, trustees, directors, officers, employees, and agents and the successor and assigns of any of the foregoing (collectively, the "Indemnitees") from and against any and all liabilities, damages, penalties, expenses and/or losses, including reasonable attorneys' fees and other expenses of litigation resulting from any claims, actions, suits, or proceedings brought by third parties (any of the foregoing, a "Claim") against any Indemnitee, arising from or occurring as a result of (a) the exercise or practice of the rights and licenses granted under this Agreement by Sponsor or its Affiliates or Sublicensees, including, without limitation, the research, development, possession, storage, transport, importation, use, sale, marketing or distribution of Royalty Products, (b) a breach of any of Sponsor's obligations, representations or warranties under this Agreement, or (c) the negligence, recklessness or intentional misconduct of Sponsor, its Affiliates or Sublicensees in connection with this Agreement, but specifically excluding Claims, arising from or occurring as a result of a breach of any of Buck's obligations, representations or warranties under this Agreement or the gross negligence, recklessness or intentional misconduct of Buck or its Affiliates; provided that an Indemnitee that intends to claim indemnification under this Article 10 shall: (i) promptly notify Sponsor in writing of any Claim with respect to which the Indemnitee intends to claim such indemnification, (ii) give Sponsor sole control of the defense and/or settlement thereof, and (iii) provide Sponsor, at Sponsor's expense, with reasonable assistance and full information with respect to such Claim. Sponsor shall not settle any claim, suit or proceeding subject to this Article 10 or otherwise consent to an adverse judgment in such claim, suit or proceeding if the same materially diminishes the rights or interests of the Indemnitee without the express written consent of the Indemnitee. Notwithstanding the foregoing, Sponsor shall have no obligations for any Claim if the Indemnitee seeking indemnification makes any admission or settlement regarding such Claim without the prior written consent of Sponsor, which consent shall not be unreasonably withheld.

ARTICLE 11
USE OF NAMES

Except as required by law or in the normal course of business identification, neither Sponsor nor Buck shall issue any press release or other written statements in connection with this Agreement intended for use in the public media in a manner suggesting any endorsement by the other of Sponsor or Buck (including Buck), respectively, without the approval of such other party, which approval shall not be unreasonably withheld.

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ARTICLE 12
REPRESENTATIONS AND WARRANTIES

12.1 Warranties by Buck. Buck represents and warrants that (i) Buck has the sole right and authority to enter into this Agreement and grant the rights and licenses hereunder; (ii) Buck has not previously granted and will not grant any rights in the Licensed Subject Matter that are inconsistent with the rights and licenses granted to Sponsor herein; (iii) to its knowledge, there are no claims of third parties as of the Effective Date that would call into question the rights of Buck to grant to Sponsor the rights contemplated hereunder; and (iv) to its knowledge, except for the Patent Rights, as of the Effective Date, Buck does not own or control any patent or patent application (including any invention disclosure or draft patent application for which a patent application is intended to be filed) the claims of which would dominate any practice of the Licensed Subject Matter.

12.2 Mutual Warranties. Each party hereby represents and warrants as of the Effective Date:

(a) it is duly organized and validly existing under the laws of its state of incorporation and has full corporate power and authority to enter into this Agreement and to carry out the provisions hereof.

(b) it is duly authorized to execute and deliver this Agreement and to perform its obligations hereunder. The person executing this Agreement on its behalf has been duly authorized to do so by all requisite corporate action.

(c) This Agreement is a legal and valid obligation binding upon it and enforceable in accordance with its terms. The execution, delivery and performance of this Agreement by it do not conflict with any agreement, instrument or understanding, oral or written, to which it or any of its Affiliates is a party or by which it or any of its Affiliates may be bound.

12.3 Disclaimer. EXCEPT AS PROVIDED IN THIS ARTICLE 12, NEITHER PARTY MAKES ANY WARRANTIES OR CONDITIONS (EXPRESS, IMPLIED, STATUTORY OR OTHERWISE) WITH RESPECT TO THE SUBJECT MATTER HEREOF, AND BUCK SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ALL WARRANTIES AND CONDITIONS OF THE VALIDITY OF THE LICENSED SUBJECT MATTER OR NONINFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

ARTICLE 13
GENERAL

13.1 Patent Marking. Sponsor agrees to mark, and require its Affiliates and Sublicensees to mark, all Royalty Products sold with all applicable patent numbers within the Patent Rights or otherwise conform to patent laws and practices of the country in which such Royalty Product is sold.

13.2 No Implied Obligations. Sponsor's sole obligation to exploit the Licensed Subject Matter is as set forth in Article 5. Nothing in this Agreement shall be deemed to require Sponsor to otherwise exploit the Licensed Subject Matter nor prevent Sponsor from commercializing products similar to or competitive with a Licensed Product.

13.3 Independent Contractors. The relationship of Buck and Sponsor established by this Agreement is that of independent contractors. Nothing in this Agreement shall be construed to create any other relationship between Buck and Sponsor. Neither party shall have any right, power or authority to assume, create or incur any expense, liability or obligation, express or implied, on behalf of the other.

13.4 Confidential Terms. Except as expressly provided herein, each party agrees not to disclose any terms of this Agreement to any third party without the consent of the other party, except as required by securities or other applicable laws, to prospective and other investors and such party's accountants, attorneys and other professional advisors.

13.5 Assignment. This Agreement may not be assigned by a party without the prior written consent of the other party except to a party that succeeds to all or substantially all of the assigning party's business or assets relating to this Agreement whether by sale, merger, operation of law or otherwise; provided that such assignee or transferee promptly agrees in writing to be bound by the terms and conditions of this Agreement. Buck may assign its right to receive payments hereunder upon prior written notice to Sponsor.

13.6 Force Majeure. In the event either party hereto is prevented from or delayed in the performance of any of its obligations hereunder by reason of acts of God, war, strikes, riots, storms, fires, or any other cause whatsoever beyond the reasonable control of the party, the party so prevented or delayed shall notify the other party as soon as reasonably possible, be excused from the performance of any such obligation to the extent and during the period of such prevention or delay, and resume performance hereunder as soon as reasonably possible following cessation of such event or occurrence. Notwithstanding the foregoing, a party shall not be excused from the performance of any of its payment obligations under this Section 13.6.

13.7 Notices. Any notice or other communication required by this Agreement shall be made in writing and given by prepaid, first class, certified mail, return receipt requested, or by reputable express courier and shall be deemed to have been served on the date received by the addressee at the following address or such other address as may from time to time be designated to the other party in writing:

If to Buck: Buck Institute for Research on Aging
8001 Redwood Boulevard
Novato, California 94945
Attention: VP, Business Development

If to Sponsor: Unity Biotechnology, Inc.
3280 Brisbane Blvd
Brisbane, California 94005
Attention: CEO

with a copy to: Wilson Sonsini Goodrich & Rosati
650 Page Mill Road
Palo Alto, California 94304-1050
Attention: [***].

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13.8 Compliance with Law. Sponsor shall comply with all applicable federal, state and local laws and regulations in connection with its activities pursuant to this Agreement.

13.9 Governing Law. This Agreement shall be governed by, and construed and interpreted in accordance with, the laws of the State of California, without reference to its principles of conflicts of law.

13.10 No Waiver. No waiver hereunder shall be effective unless made in writing and signed by the waiving party. In addition, any such written waiver shall not constitute or be deemed to be a waiver of any other right hereunder or of any other failure to perform or breach hereof by such other party, whether of a similar or dissimilar nature thereto.

13.11 Limitation of Liability. NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY OR ANY THIRD PARTY FOR ANY SPECIAL, CONSEQUENTIAL, EXEMPLARY OR INCIDENTAL DAMAGES (INCLUDING LOST OR ANTICIPATED REVENUES OR PROFITS RELATING TO THE SAME), ARISING FROM ANY CLAIM RELATING TO THIS AGREEMENT, WHETHER SUCH CLAIM IS BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, EVEN IF AN AUTHORIZED REPRESENTATIVE OF SUCH PARTY IS ADVISED OF THE POSSIBILITY OR LIKELIHOOD OF SAME. THE FOREGOING LIMITATION SHALL NOT APPLY, HOWEVER, TO A PARTY'S INDEMNIFICATION OBLIGATIONS PURSUANT TO ARTICLE 9 OR TO A BREACH OF A PARTY'S CONFIDENTIALITY OBLIGATIONS UNDER ARTICLE 6. IN NO EVENT WILL BUCK'S LIABILITY ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT EXCEED THE TOTAL COMPENSATION THAT HAS BEEN PAID TO BUCK BY SPONSOR AS OF THE DATE OF FILING AN ACTION AGAINST BUCK THAT RESULTS IN A SETTLEMENT OR AWARD OF DAMAGES TO SPONSOR.

13.12 Headings. Headings included herein are for convenience only, do not form a part of this Agreement and shall not be used in any way to construe or interpret this Agreement.

13.13 Severability. If any provision of this Agreement shall be found by a court to be void, invalid or unenforceable, the same shall be reformed to comply with applicable law or stricken if not so conformable, so as not to affect the validity or enforceability of the remainder of this Agreement. In such event, the parties will in good faith negotiate a substitute clause for any provision declared invalid or unenforceable, which will most nearly approximate the intent of the parties in entering this Agreement.

13.14 Entire Agreement. This Agreement constitutes the entire understanding and agreement between the parties with respect to the subject matter hereof and supersedes any and all prior negotiations, representations, agreements, and understandings, written or oral, that the parties may have reached with respect to the subject matter hereof. No agreements altering or supplementing the terms hereof may be made except by means of a written document signed by the duly authorized representatives of each of the parties hereto. It is understood that the Buck Research Agreements are separate and independent from this Agreement and termination of either agreement shall not operate to terminate or otherwise affect the rights and obligations of the parties under the other agreement.

13.15 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but both of which together shall constitute one and the same instrument. Counterparts may be signed and delivered by facsimile or via email in Portable Document Format (PDF), each of which will be binding when sent.

13.16 Insurance. Prior to the commencement of any human clinical trials of a Royalty Product, Sponsor shall obtain a product/clinical trial liability insurance policy in good standing and adequate to cover its obligations hereunder and which are consistent with normal business practices of prudent companies similarly situated, during the period in which Sponsor is performing clinical studies (including any follow-up care) of Royalty Product (the "Trial Period"). Such policy shall remain in effect during the Trial Period and for ninety (90) days thereafter, and shall, to the extent written on a claims-made form, provide for a three (3) year tail covering circumstances, incidents, and/or claims arising from activities occurring prior to the termination of such policy. In any event, Sponsor shall name Buck as an additional insured on such policy and shall require the insurer to provide written notice to Buck within sixty (60) days of any change in or termination of such policy that would negatively impact the coverage of Sponsor under such policy. Sponsor shall provide a copy of such policy to Buck at least ninety (90) days prior to the commencement of human clinical trials. Additionally, upon and after the First Commercial Sale or distribution of a Royalty Product, and for so long as such Royalty Product is sold by or on behalf of Sponsor or its Affiliates, Sponsor shall maintain comprehensive general liability, product liability and broad form contractual liability insurance in amounts and with coverage conditions customary for like products naming Buck as an additional insured.

IN WITNESS WHEREOF, the parties hereto have caused their duly authorized representatives to execute this Agreement.

Unity Biotechnology, Inc.

Buck institute for Research on Aging By:

By: /s/ Nathaniel David

By: /s/ Remy Gross, III

Name: Nathaniel David, PhD

Name: Remy Gross, III

Title: President

Title: Vice President, Business Development

Date: 27 January 2017

Date: _____

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit A

Unity and Buck – Patent Portfolio Summary

[***]

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit B

CENEXYS, INC.

STOCK PURCHASE AGREEMENT

This Stock Purchase Agreement (the "**Agreement**") is made as of February 3, 2014 by and between Cenexys, Inc., a Delaware corporation (the "**Company**"), and The Buck Institute for Research on Aging (the "**Purchaser**").

In consideration of the mutual covenants and representations set forth below, the Company and the Purchaser agree as follows:

1. **Purchase and Sale of the Shares.** Subject to the terms and conditions of this Agreement, the Company agrees to sell to the Purchaser and the Purchaser agrees to purchase from the Company on the Closing (as defined below) 390,000 shares of the Company's Common Stock, par value \$0.0001 per share (the "**Shares**"), at a price of \$0.006 per share (the "**Purchase Price**"), for aggregate consideration equal to \$2,340.00.

2. **Closing.** The purchase and sale of the Shares shall occur at a closing (the "**Closing**") to be held on the date first set forth above, or at any other time mutually agreed upon by the Company and the Purchaser. The Closing will take place at the principal office of the Company or at such other place as shall be designated by the Company. At the Closing, the Purchaser shall deliver the aggregate Purchase Price set forth above to the Company by wire transfer, check or any other method of payment permissible under applicable law and approved by the Company's board of directors (or any combination of such methods of payment), and the Company will issue, as promptly thereafter as practicable, a stock certificate, registered in the name of the Purchaser, reflecting the Shares.

3. **Restrictions on Transfer.**

A. **Investment Representations and Legend Requirements.** The Purchaser hereby makes the investment representations listed on **Exhibit A** to the Company as of the date of this Agreement and as of the date of the Closing, and agrees that such representations are incorporated into this Agreement by this reference, such that the Company may rely on them in issuing the Shares. The Purchaser understands and agrees that the Company shall cause the legends set forth below, or substantially equivalent legends, to be placed upon any certificate(s) evidencing ownership of the Shares, together with any other legends that may be required by the Company or by applicable state or federal securities laws:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "**ACT**") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COUNSEL SATISFACTORY TO THE ISSUER OF THESE

SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION OTHERWISE COMPLIES WITH THE ACT.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER, A RIGHT OF FIRST REFUSAL, A LOCK-UP PERIOD IN THE EVENT OF A PUBLIC OFFERING AND A REPURCHASE OPTION HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE STOCK PURCHASE AGREEMENT BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS, RIGHT OF FIRST REFUSAL, LOCK-UP PERIOD AND REPURCHASE OPTION ARE BINDING ON TRANSFEREES OF THESE SHARES.

B. **Stop-Transfer Notices.** The Purchaser agrees that to ensure compliance with the restrictions referred to herein, the Company may issue appropriate “stop transfer” instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

C. **Refusal to Transfer.** The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

D. **Lock-Up Period.** The Purchaser hereby agrees that the Purchaser shall not sell, offer, pledge, contract to sell, grant any option or contract to purchase, purchase any option or contract to sell, grant any right or warrant to purchase, lend or otherwise transfer or encumber, directly or indirectly, any Shares or other securities of the Company, nor shall the Purchaser enter into any swap, hedging or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Shares or other securities of the Company, during the period from the filing of the first registration statement of the Company filed under the Securities Act of 1933, as amended (the “**Securities Act**”), that includes securities to be sold on behalf of the Company to the public in an underwritten public offering under the Securities Act through the end of the 180-day period following the effective date of such registration statement (or such other period as may be requested by the Company or the underwriters to accommodate regulatory restrictions on (i) the publication or other distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in NASD Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto). The Purchaser further agrees, if so requested by the Company or any representative of its underwriters, to enter into such underwriter’s standard form

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

of “lockup” or “market standoff” agreement in a form satisfactory to the Company and such underwriter. The Company may impose stop-transfer instructions with respect to securities subject to the foregoing restrictions until the end of any such restriction period.

E. **Shares.** No Shares purchased pursuant to this Agreement, nor any beneficial interest in such Shares, shall be sold, transferred, encumbered or otherwise disposed of in any way (whether by operation of law or otherwise) by the Purchaser or any subsequent transferee, other than in compliance with the Company’s right of first refusal provisions contained in Section 4 of this Agreement.

4. **Company’s Right of First Refusal.** Before any Shares acquired by the Purchaser pursuant to this Agreement (or any beneficial interest in such Shares) may be sold, transferred, encumbered or otherwise disposed of in any way (whether by operation of law or otherwise) by the Purchaser or any subsequent transferee (each a “**Holder**”), such Holder must first offer such Shares or beneficial interest to the Company and/or its assignee(s) as follows:

A. **Notice of Proposed Transfer.** The Holder shall deliver to the Company a written notice stating: (i) the Holder’s bona fide intention to sell or otherwise transfer the Shares; (ii) the name of each proposed transferee; (iii) the number of Shares to be transferred to each proposed transferee; (iv) the bona fide cash price or other consideration for which the Holder proposes to transfer the Shares; and (v) that by delivering the notice, the Holder offers all such Shares to the Company and/or its assignee(s) pursuant to this section and on the same terms described in the notice.

B. **Exercise of Right of First Refusal.** At any time within 30 days after receipt of the Holder’s notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the proposed transferees, at the purchase price determined in accordance with Section 4.C.

C. **Purchase Price.** The purchase price for the Shares purchased by the Company and/or its assignee(s) under this section shall be the price listed in the Holder’s notice. If the price listed in the Holder’s notice includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the board of directors of the Company in its sole discretion.

D. **Payment.** Payment of the purchase price shall be made, at the option of the Company and/or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company and/or its assignee(s), or by any combination thereof within 30 days after receipt by the Company of the Holder’s notice (or at such later date as is called for by such notice).

E. **Holder’s Right to Transfer.** If all of the Shares proposed in the notice to be transferred to a given proposed transferee are not purchased by the Company and/or its assignee(s) as provided in this section, then the Holder may sell or otherwise transfer such Shares to that proposed transferee; provided that: (i) the transfer is made only on the terms provided for in the notice, with the exception of the purchase price, which may be either the price listed in the

notice or any higher price; (ii) such transfer is consummated within 60 days after the date the notice is delivered to the Company; (iii) the transfer is effected in accordance with any applicable securities laws, and if requested by the Company, the Holder shall have delivered an opinion of counsel

acceptable to the Company to that effect; and (iv) the proposed transferee agrees in writing to receive and hold the Shares so transferred subject to all of the provisions of this Agreement, including but not limited to this section, and there shall be no further transfer of such Shares except in accordance with the terms of this section. If any Shares described in a notice are not transferred to the proposed transferee within the period provided above, then before any such Shares may be transferred, a new notice shall be given to the Company, and the Company and/or its assignees shall again be offered the right of first refusal described in this section.

F. **Involuntary Transfers.** Subject to the other provisions of this Section 4, in the event, at any time after the date of this Agreement, of any transfer by operation of law or other involuntary transfer (including, but not limited to, transfers by operation of law or other involuntary transfers in connection with a divorce, dissolution, legal separation or annulment) of all or a portion of the Shares by the record holder thereof that does not occur in accordance with the other provisions of this Section 4, the Company shall have the right to purchase all of the Shares transferred at the greater of the purchase price paid by Purchaser pursuant to this Agreement or the fair market value of the Shares on the date of transfer (as determined by the board of directors of the Company). Upon such a transfer, the persons transferring or acquiring the Shares shall promptly notify the Secretary of the Company in writing of such transfer. The right to purchase such Shares shall be provided to the Company for a period of 30 days following receipt by the Company of written notice of the transfer.

G. **Exception for Certain Affiliates.** Notwithstanding anything to the contrary contained elsewhere in this section, the transfer of any or all of the Shares to an affiliated research organization shall be exempt from the provisions of this section; provided that, in each such case, the transferee agrees in writing to receive and hold the Shares so transferred subject to all of the provisions of this Agreement, including but not limited to this section, and there shall be no further transfer of such Shares except in accordance with the terms of this section; and provided further, that without the prior written consent of the Company, which may be withheld in the sole discretion of the Company, no more than three transfers may be made pursuant to this section, including all transfers by the Holder and all transfers by any transferee.

H. **Termination of Right of First Refusal.** The rights contained in this section shall terminate as to all Shares purchased hereunder upon the earlier of: (i) the closing date of the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act, and (ii) the closing date of a Change of Control pursuant to which the holders of the outstanding voting securities of the Company receive securities of a class registered pursuant to Section 12 of the Securities Exchange Act of 1934, as amended.

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

5. **Tax Consequences.** The Purchaser has reviewed with the Purchaser's own tax advisors the federal, state, local and foreign tax consequences of this investment and the transactions contemplated by this Agreement. The Purchaser is relying solely on such advisors and not on any statements or representations of the Company or any of its agents. The Purchaser understands that the Purchaser (and not the Company) shall be responsible for any tax liability that may arise as a result of the transactions contemplated by this Agreement.

6. **General Provisions.**

A. **Choice of Law.** This Agreement shall be governed by the internal substantive laws, but not the choice of law rules, of California.

B. **Integration.** This Agreement, including all exhibits hereto, represents the entire agreement between the parties with respect to the purchase of the Shares by the Purchaser and supersedes and replaces any and all prior written or oral agreements regarding the subject matter of this Agreement including, but not limited to, any representations made during any interviews, relocation discussions or negotiations whether written or oral.

C. **Notices.** Any notice, demand, offer, request or other communication required or permitted to be given by either the Company or the Purchaser pursuant to the terms of this Agreement shall be in writing and shall be deemed effectively given the earlier of (i) when received, (ii) when delivered personally, (iii) one business day after being delivered by facsimile (with receipt of appropriate confirmation), (iv) one business day after being deposited with an overnight courier service or (v) four days after being deposited in the U.S. mail, First Class with postage prepaid and return receipt requested, and addressed to the parties at the addresses provided to the Company (which the Company agrees to disclose to the other parties upon request) or such other address as a party may request by notifying the other in writing.

D. **Successors.** Any successor to the Company (whether direct or indirect and whether by purchase, merger, consolidation, liquidation or otherwise) to all or substantially all of the Company's business and/or assets shall assume the obligations under this Agreement and agree expressly to perform the obligations under this Agreement in the same manner and to the same extent as the Company would be required to perform such obligations in the absence of a succession. For all purposes under this Agreement, the term "Company" shall include any successor to the Company's business and/or assets which executes and delivers the assumption agreement described in this section or which becomes bound by the terms of this Agreement by operation of law. Subject to the restrictions on transfer set forth in this Agreement, this Agreement shall be binding upon the Purchaser and his or her heirs, executors, administrators, successors and assigns.

E. **Assignment; Transfers.** Except as set forth in this Agreement, this Agreement, and any and all rights, duties and obligations hereunder, shall not be assigned, transferred, delegated or sublicensed by the Purchaser without the prior written consent of the

Company. Any attempt by the Purchaser without such consent to assign, transfer, delegate or sublicense any rights, duties or obligations that arise under this Agreement shall be void. Except as set forth in this Agreement, any transfers in violation of any restriction upon transfer contained in any section of this Agreement shall be void, unless such restriction is waived in accordance with the terms of this Agreement.

F. **Waiver.** Either party's failure to enforce any provision of this Agreement shall not in any way be construed as a waiver of any such provision, nor prevent that party from thereafter enforcing any other provision of this Agreement. The rights granted both parties hereunder are cumulative and shall not constitute a waiver of either party's right to assert any other legal remedy available to it.

G. **Purchaser Investment Representations and Further Documents.** The Purchaser agrees upon request to execute any further documents or instruments necessary or reasonably desirable in the view of the Company to carry out the purposes or intent of this Agreement, including (but not limited to) the applicable exhibits and attachments to this Agreement.

H. **Severability.** Should any provision of this Agreement be found to be illegal or unenforceable, the other provisions shall nevertheless remain effective and shall remain enforceable to the greatest extent permitted by law.

I. **Rights as Stockholder.** Subject to the terms and conditions of this Agreement, the Purchaser shall have all of the rights of a stockholder of the Company with respect to the Shares from and after the date that the Purchaser delivers a fully executed copy of this Agreement (including the applicable exhibits and attachments to this Agreement) and full payment for the Shares to the Company, and until such time as the Purchaser disposes of the Shares in accordance with this Agreement. Upon such transfer, the Purchaser shall have no further rights as a holder of the Shares so purchased except (in the case of a transfer to the Company) the right to receive payment for the Shares so purchased in accordance with the provisions of this Agreement, and the Purchaser shall forthwith cause the certificate(s) evidencing the Shares so purchased to be surrendered to the Company for transfer or cancellation.

J. **Adjustment for Stock Split.** All references to the number of Shares and the purchase price of the Shares in this Agreement shall be adjusted to reflect any stock split, stock dividend or other change in the Shares which may be made after the date of this Agreement.

K. **Arbitration and Equitable Relief.**

(1) *Arbitration.* IN CONSIDERATION OF THE PROMISES IN THIS AGREEMENT, THE PURCHASER AGREES THAT ANY AND ALL CONTROVERSIES, CLAIMS, OR DISPUTES WITH ANYONE (INCLUDING THE COMPANY AND ANY EMPLOYEE, OFFICER, DIRECTOR, SHAREHOLDER OR BENEFIT PLAN OF THE COMPANY IN THEIR CAPACITY AS SUCH OR OTHERWISE) ARISING OUT OF, RELATING TO, OR RESULTING FROM THIS AGREEMENT, SHALL BE SUBJECT TO BINDING ARBITRATION UNDER THE ARBITRATION RULES SET FORTH IN

CALIFORNIA CODE OF CIVIL PROCEDURE SECTION 1280 THROUGH 1294.2, INCLUDING SECTION 1283.05 (THE "RULES") AND PURSUANT TO CALIFORNIA LAW. DISPUTES WHICH THE PURCHASER AGREES TO ARBITRATE, AND THEREBY AGREES TO WAIVE ANY RIGHT TO A TRIAL BY JURY, INCLUDE ANY STATUTORY CLAIMS UNDER STATE OR FEDERAL LAW, INCLUDING, BUT NOT LIMITED TO, CLAIMS UNDER TITLE VII OF THE CIVIL RIGHTS ACT OF 1964, THE AMERICANS WITH DISABILITIES

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***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

ACT OF 1990, THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967, THE OLDER WORKERS BENEFIT PROTECTION ACT, THE WORKER ADJUSTMENT AND RETRAINING NOTIFICATION ACT, THE CALIFORNIA FAIR EMPLOYMENT AND HOUSING ACT, THE FAMILY AND MEDICAL LEAVE ACT, THE CALIFORNIA FAMILY RIGHTS ACT, THE CALIFORNIA LABOR CODE, CLAIMS OF HARASSMENT, DISCRIMINATION OR WRONGFUL TERMINATION AND ANY STATUTORY CLAIMS. THE PURCHASER FURTHER UNDERSTANDS THAT THIS AGREEMENT TO ARBITRATE ALSO APPLIES TO ANY DISPUTES THAT THE COMPANY MAY HAVE WITH THE PURCHASER.

(2) *Procedure.* THE PURCHASER AGREES THAT ANY ARBITRATION WILL BE ADMINISTERED BY THE AMERICAN ARBITRATION ASSOCIATION (“AAA”) AND THAT THE NEUTRAL ARBITRATOR WILL BE SELECTED IN A MANNER CONSISTENT WITH ITS NATIONAL RULES FOR THE RESOLUTION OF EMPLOYMENT DISPUTES. THE PURCHASER AGREES THAT THE ARBITRATOR SHALL HAVE THE POWER TO DECIDE ANY MOTIONS BROUGHT BY ANY PARTY TO THE ARBITRATION, INCLUDING MOTIONS FOR SUMMARY JUDGMENT AND/OR ADJUDICATION AND MOTIONS TO DISMISS AND DEMURRERS, PRIOR TO ANY ARBITRATION HEARING. THE PURCHASER ALSO AGREES THAT THE ARBITRATOR SHALL HAVE THE POWER TO AWARD ANY REMEDIES, INCLUDING ATTORNEYS’ FEES AND COSTS, AVAILABLE UNDER APPLICABLE LAW. PURCHASER UNDERSTANDS THAT THE COMPANY WILL PAY FOR ANY ADMINISTRATIVE OR HEARING FEES CHARGED BY THE ARBITRATOR OR AAA EXCEPT THAT PURCHASER SHALL PAY THE FIRST \$125.00 OF ANY FILING FEES ASSOCIATED WITH ANY ARBITRATION PURCHASER INITIATES. PURCHASER AGREES THAT THE ARBITRATOR SHALL ADMINISTER AND CONDUCT ANY ARBITRATION IN A MANNER CONSISTENT WITH THE RULES AND THAT TO THE EXTENT THAT THE AAA’S NATIONAL RULES FOR THE RESOLUTION OF EMPLOYMENT DISPUTES CONFLICT WITH THE RULES, THE RULES SHALL TAKE PRECEDENCE. THE PURCHASER AGREES THAT THE DECISION OF THE ARBITRATOR SHALL BE IN WRITING.

(3) *Remedy.* EXCEPT AS PROVIDED BY THE RULES AND THIS AGREEMENT, ARBITRATION SHALL BE THE SOLE, EXCLUSIVE AND FINAL REMEDY FOR ANY DISPUTE BETWEEN THE PURCHASER AND THE COMPANY. ACCORDINGLY, EXCEPT AS PROVIDED FOR BY THE RULES AND THIS AGREEMENT, NEITHER THE PURCHASER NOR THE COMPANY WILL BE PERMITTED TO PURSUE COURT ACTION REGARDING CLAIMS THAT ARE SUBJECT TO ARBITRATION. NOTWITHSTANDING, THE ARBITRATOR WILL NOT HAVE THE AUTHORITY TO DISREGARD OR REFUSE TO ENFORCE ANY LAWFUL COMPANY POLICY, AND THE ARBITRATOR SHALL NOT ORDER OR REQUIRE THE COMPANY TO ADOPT A POLICY NOT OTHERWISE REQUIRED BYLAW WHICH THE COMPANY HAS NOT ADOPTED.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(4) *Voluntary Nature of Agreement.* THE PURCHASER ACKNOWLEDGES AND AGREES THAT THE PURCHASER IS EXECUTING THIS AGREEMENT VOLUNTARILY AND WITHOUT ANY DURESS OR UNDUE INFLUENCE BY THE COMPANY OR ANYONE ELSE. THE PURCHASER FURTHER ACKNOWLEDGES AND AGREES THAT THE PURCHASER HAS CAREFULLY READ THIS AGREEMENT AND THAT THE PURCHASER HAS ASKED ANY QUESTIONS NEEDED FOR THE PURCHASER TO UNDERSTAND THE TERMS, CONSEQUENCES AND BINDING EFFECT OF THIS AGREEMENT AND FULLY UNDERSTANDS IT, INCLUDING **THAT THE PURCHASER IS WAIVING THE PURCHASER'S RIGHT TO A JURY TRIAL**. FINALLY, THE PURCHASER AGREES THAT THE PURCHASER HAS BEEN PROVIDED AN OPPORTUNITY TO SEEK THE ADVICE OF AN ATTORNEY OF THE PURCHASER'S CHOICE BEFORE SIGNING THIS AGREEMENT.

L. *Reliance on Counsel and Advisors.* The Purchaser acknowledges that Wilson Sonsini Goodrich & Rosati, Professional Corporation, is representing only the Company in this transaction. The Purchaser acknowledges that he or she has had the opportunity to review this Agreement, including all attachments hereto, and the transactions contemplated by this Agreement with his or her own legal counsel, tax advisors and other advisors. The Purchaser is relying solely on his or her own counsel and advisors and not on any statements or representations of the Company or its agents for legal or other advice with respect to this investment or the transactions contemplated by this Agreement.

M. *Counterparts.* This Agreement may be executed in one or more counterparts, each of which will be deemed an original, but all of which together will constitute one and the same agreement. Facsimile copies of signed signature pages shall be binding originals.

(signature page follows)

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

The parties represent that they have read this Agreement in its entirety, have had an opportunity to obtain the advice of counsel prior to executing this Agreement and fully understand this Agreement. The Purchaser agrees to notify the Company of any change in his or her address below.

THE BUCK INSTITUTE FOR RESEARCH ON AGING

CENEXYS, INC.

/s/ Remy Gross, III
Signature

Signature

Remy Gross, III
Print Name

Print Name

VP, Business Development
Print Title

Print Title

Address:
8001 Redwood Blvd.

Novato, CA 94945

***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

The parties represent that they have read this Agreement in its entirety, have had an opportunity to obtain the advice of counsel prior to executing this Agreement and fully understand this Agreement. The Purchaser agrees to notify the Company of any change in his or her address below.

THE BUCK INSTITUTE FOR RESEARCH ON AGING

CENEXYS, INC.

Signature

/s/ Nathaniel David
Signature

Print Name

Nathaniel David
Print Name

Print Title

February 25, 2014
Print Title

Address:

***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit C

Proprietary Research Tools and Proprietary Research Tool Patents

None.

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***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit D

MATERIAL TRANSFER AGREEMENT

Buck Institute for Research on Aging

Dr. _____ (Recipient Scientist)

DATE

COMPANY NAME

ADDRESS

ADDRESS

Buck Institute for Research on Aging (“Buck”) is pleased to be able to provide INSERT MATERIALS HERE and any components thereof, which we shall refer to throughout this agreement as the “Material,” to you at COMPANY NAME (Company). Buck is interested in supporting research using the Material and will provide you with samples of the Material as long as you agree to certain conditions on your use of the Material. The conditions described below are necessary to insure that the Material is used solely for research and that Buck’s interests in any possible commercialization of the Material are protected. These conditions are:

1. The Material is owned by Buck and is provided under a license agreement effective as of _____ (“License”) between the parties. Upon termination of your research or use of the Material and/or at the instructions of Buck, you shall either return the Material to Buck or destroy all unused portions of the Material.
2. Use of the Material must be in compliance with the terms of the license agreement and applicable laws and regulations. The Material must not be used in human subjects, in clinical trials, or for diagnostic purposes involving human subjects, without the written consent of Buck.
3. The Material must not be transferred to any other parties, other than researchers at your Company or collaborators that are working on specific research projects on behalf of the Company (and transferred for the purpose of such collaboration) without first having obtained a written agreement to the transfer from Buck. No researchers working with you may use the Material unless they are aware of and agree to be bound by the terms of this agreement. Both parties shall comply with all applicable laws and regulations, as amended from time to time, with respect to the collection, use, storage and disclosure of the Material and any related data, including without limitation, the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and its implementing regulations (45 C.F.R. et.seq.)
4. Except to the extent prohibited by law, Company will assume all liability for damages which may arise from its use, storage or disposal of the Material. Buck will not be liable to Company for any loss, claim or demand made by Company or made against Company by any other party, due to or arising from the use of the Material by Company, except to the extent permitted by law when caused by the gross negligence or willful misconduct of Buck.

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

5. ANY MATERIAL DELIVERED PURSUANT TO THIS AGREEMENT IS UNDERSTOOD TO BE EXPERIMENTAL IN NATURE AND MAY HAVE HAZARDOUS PROPERTIES. ANY MATERIAL PROVIDED IS PROVIDED AS IS AND BUCK MAKES NO AND HEREBY DISCLAIMS ALL REPRESENTATIONS OR WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED. THERE ARE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR THAT THE USE OF THE MATERIAL WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADEMARK OR OTHER PROPRIETARY RIGHTS.
6. Company agrees to provide appropriate acknowledgement of the source of the Material in all publications.
7. Company agrees to pay \$ in partial reimbursement of the costs of producing, maintaining and distributing the Material.
8. Company will not use publicly for publicity, promotion, or otherwise, any logo, name, trade name, service mark, or trademark of Buck or its Affiliates, including, but not limited to the terms “Buck,” “Buck Institute,” and the Buck logo, or any simulation, abbreviation, or adaptation of the same, or the name of any Buck employee or agent, without Buck’s prior, written, express consent, other than provided in Section 6 above. Buck may withhold such consent in Buck’s absolute discretion.
9. This agreement, in conjunction with the license agreement, constitutes the final, complete and exclusive agreement between the parties with respect to its subject matter and supercedes all past and contemporaneous agreements, promises, and understandings, whether oral or written, between the parties. This agreement shall be binding upon and inure to the benefit of the parties, their heirs, legal representatives, successors and assigns. This agreement may not be amended or modified except by a writing signed by both parties and identified as an amendment to this agreement. Neither this agreement nor any of the rights or obligations under the agreement may be assigned by Company without the written consent of Buck. The failure of Buck to insist at any time upon the strict observance or performance of any of the provisions of this agreement, or to exercise any right or remedy as provided in this agreement, will not impair any such right or remedy and will not be construed to be a waiver or relinquishment of the right or remedy. Execution of this agreement can be effected by photocopied, scanned or faxed signatures.

If you agree to these conditions, please sign in the space provided below as the Recipient and have an authorized representative of your Company sign where indicated. Return the agreement to Buck Institute for Research on Aging, 8001 Redwood Boulevard, Novato, California 94945. Upon receipt of the signed agreement, Buck will provide the Material as requested.

[SIGNATURES ON THE NEXT PAGE]

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***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

BUCK INSTITUTE ON AGING

By: _____
[insert name and title of Buck signatory]

Date: _____

READ AND UNDERSTOOD BY THE RECIPIENT SCIENTIST:

(Recipient Scientist Signature)*

(Recipient Scientist)

ACCEPTED AND AGREED BY AUTHORIZED REPRESENTATIVE OF RECEIVING COMPANY

By: _____
(Authorized Representative's Signature)*

Date: _____

Printed Name and Title : _____

Company: _____

Address: _____

Phone No.: _____

* Please Note: The Recipient and the Authorized Representative cannot be the same.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

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EXCLUSIVE LICENSE AGREEMENT

BETWEEN

THE JOHNS HOPKINS UNIVERSITY

&

UNITY BIOTECHNOLOGY, INC.

JHU Agreement: A30652

LICENSE AGREEMENT

THIS LICENSE AGREEMENT (the "Agreement") is entered into by and between THE JOHNS HOPKINS UNIVERSITY, a Maryland corporation having an address at 3400 N. Charles Street, Baltimore, Maryland, 21218-2695 ("JHU") and Unity Biotechnology, Inc., a Delaware corporation having an address at 3280 Brisbane Blvd, Brisbane CA 94005 ("Company"), with respect to the following:

RECITALS

WHEREAS, as a center for research and education, JHU is interested in licensing PATENT RIGHTS (hereinafter defined) in a manner that will benefit the public by facilitating the distribution of useful products and the utilization of new processes, but is without capacity to commercially develop, manufacture, and distribute any such products or processes; and

WHEREAS, a valuable invention entitled "Improvement of Cartilage Tissue Forming Ability by Clearance of Senescent Cells" (JHU Ref. # C13890) was developed during the course of research conducted by Drs. Jennifer Elisseeff, Okhee Jeon Chaekyu Kim, and Sona Rathod (all hereinafter, "Inventors"); and

WHEREAS, JHU has acquired through assignment all rights, title and interest, with the exception of certain retained rights by the United States Government, in its interest in said valuable inventions; and

WHEREAS, Company desires to obtain certain rights in such inventions as herein provided, and to commercially develop, manufacture, use and distribute products and processes based upon or embodying said valuable inventions throughout the world.

NOW THEREFORE, in consideration of the premises and the mutual promises and covenants contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

ARTICLE 1 DEFINITIONS

All references to particular Exhibits, Articles or Paragraphs shall mean the Exhibits to, and Paragraphs and Articles of, this Agreement, unless otherwise specified. For the purposes of this Agreement and the Exhibits hereto, the following words and phrases shall have the following meanings:

1.1 "AFFILIATED COMPANY" as used herein in either singular or plural shall mean any corporation, company, partnership, joint venture or other entity, which controls, is controlled by or is under common control with Company. For purposes of this Paragraph 1.1, control shall mean the direct or indirect ownership of at least fifty percent (50%).

1.2 "EFFECTIVE DATE" of this License Agreement shall mean the date the last party hereto has executed this Agreement.

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1.3 “EXCLUSIVE LICENSE” shall mean a grant by JHU to Company of its entire right and interest in the PATENT RIGHTS subject to rights retained by the United States Government, if any, in accordance with the Bayh-Dole Act of 1980 (established by P.L. 96-517 and amended by P.L. 98-620, codified at 35 USC § 200 et. seq. and implemented according to 37 CFR Part 401), and subject to the retained right of JHU to practice for its and The Johns Hopkins Health Systems’ non-commercial academic research and teaching purposes the PATENT RIGHTS, including the ability to distribute any biological material disclosed and/or claimed in PATENT RIGHTS for nonprofit non-commercial academic research use to non-commercial entities as is customary in the scientific community.

1.4 “KNOW-HOW AND MATERIALS” shall mean JHU’s interest in proprietary materials, information, records, and data developed by Inventors and in the custody and control of JHU that are supplied to the LICENSEE by JHU on or before or after the EFFECTIVE DATE of this Agreement directly related to the use of and practice of PATENT RIGHTS. Provided, however, that although JHU may supply additional KNOW HOW AND MATERIALS after the EFFECTIVE DATE, JHU shall have no obligation to do so unless specifically and clearly stated in this Agreement.

1.5 “LICENSED FIELD” shall mean all fields of use.

1.6 “LICENSED PRODUCT(S)” as used herein in either singular or plural shall mean any material, compositions, drug, or other product, the manufacture, use or sale of which by Company, AFFILIATED COMPANIES and/or SUBLICENSEES would constitute, but for the license granted to Company pursuant to this Agreement, an infringement of a VALID CLAIM of PATENT RIGHTS (infringement shall include, but is not limited to, direct, contributory, or inducement to infringe).

1.7 “NEOCHONDROGENESIS CLAIM” shall mean a VALID CLAIM of the PATENT RIGHTS that claims a method for treatment of cartilage defects resulting from osteoarthritis through the administering of a senolytic agent to induce neochondrogenesis.

1.8 “NET SALES” shall mean gross sales revenues and fees actually received by Company, AFFILIATED COMPANY and SUBLICENSEES from the sale of ROYALTY PRODUCT(S) less (i) trade, quantity or cash discounts allowed, (ii) refunds, credits or allowances for returns, rejections and recalls; (iii) rebates and chargebacks, (iv) sales, use or other taxes and tariffs, duties or other charges levied by a governmental entity on the production, sale, delivery or use of ROYALTY PRODUCT(S), and (iv) packing, freight, shipping and insurance charges.

In the event that Company, AFFILIATED COMPANY or SUBLICENSEE sells a ROYALTY PRODUCT as part of a combination, then:

(i) in the event that Company, AFFILIATED COMPANY or SUBLICENSEE sells in a particular country during a particular year a ROYALTY PRODUCT together with other non-therapeutic ingredients or substances or as part of a kit, and Company or AFFILIATED COMPANY also sells such ROYALTY PRODUCT in such country in such year separately the NET SALES for purposes of royalty payments shall be based on the sales revenues and fees that would be received from the separate sale of the same quantity of ROYALTY PRODUCT as is contained in the combination.

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(ii) in the event that Company, AFFILIATED COMPANY or SUBLICENSEE sells, in a particular country during a particular year, a ROYALTY PRODUCT for therapeutic purposes in combination with a therapeutically active ingredient which is not a LICENSED PRODUCT (“Other Items”), the NET SALES for purposes of royalty payments shall be calculated as follows:

(a) If all ROYALTY PRODUCTS and Other Items contained in the combination are available separately in the particular country during such year, the NET SALES for purposes of royalty payments will be calculated by multiplying the NET SALES of the combination by the fraction $A/A+B$, where A is the separately available price of all ROYALTY PRODUCTS in the combination in the particular country during such year, and B is the separately available price for all Other Items in the combination in the particular country during such year.

(b) If a ROYALTY PRODUCT or Other Item contained in the combination is not sold separately in the particular country during such year, the parties agree to negotiate a reduction in the royalty rate to reflect the fair value that the ROYALTY PRODUCT attributed to the overall product sold.

The term “Other Items” does not include solvents, diluents, carriers, excipients, buffers or the like used in formulating a product.

(c) In no event shall Company apply the credit in both paragraphs above to the same sale of a LICENSED PRODUCT.

In the event that Company enters into a sublicense agreement hereunder, and receives payments based upon the SUBLICENSEE’s sales of ROYALTY PRODUCTS, Company may upon consent of JHU, which consent shall not be unreasonably withheld, substitute the definition of “net sales” used in said sublicense agreement by the SUBLICENSEE to calculate payments to Company in place of the foregoing definition of “NET SALES” for purposes of calculating royalties payable to JHU on such SUBLICENSEE’s sales under such sublicense agreement. For clarity, JHU shall be entitled to withhold its consent to any proposed alteration to the definition of “net sales” that would materially alter the royalty payments due to JHU on the applicable SUBLICENSEE’s sales of ROYALTY PRODUCTS.

1.9 “PARTNERSHIP PROCEEDS” shall mean consideration received by Company to the extent attributable to a grant of a sublicense under the PATENT RIGHTS with respect to a ROYALTY PRODUCT, including licensing fees, equity investments above fair market value, and any other sublicensing revenue received by Company to the extent attributable to a grant of a sublicense under the PATENT RIGHTS with respect to a ROYALTY PRODUCT, but specifically *excluding* consideration received: (i) as royalties for sales of products, (ii) payments for the occurrence of specified development, regulatory or commercialization milestones, (iii) for the performance of or reimbursement for research or activities performed by or on behalf of

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Company, (iv) for the sale of capital stock or other equity interests in Company, (v) as reimbursement for costs incurred by Company (e.g., patent costs), (vi) for grants of rights to technology other than PATENT RIGHTS, (vii) for the supply of ROYALTY PRODUCTS, or other products, materials to such SUBLICENSEE, and (viii) for the sale of substantially all of the business or assets of Company, whether by merger, sale of stock, sale of assets or otherwise.

1.10 "PATENT RIGHTS" shall mean the patent application listed in EXHIBIT D together with any subsequently filed patent applications owned by JHU that claim inventions made in the laboratory of Inventor, Dr. Jennifer Elisseeff, prior to the Effective Date, which inventions arose from the use of funds provided by Company and pertain to the mechanisms by which senescent cells give rise to aging and/or disease, and all continuations, divisions, continuations-in-part and continued prosecution applications with respect to any of the foregoing, all patents issuing from such patent applications, and all reissues, renewals, reexaminations, extensions and supplemental protection certificates thereof, and any corresponding foreign patent applications, and any patents, or other equivalent foreign patent rights issuing, granted or registered thereon.

1.11 "ROYALTY PRODUCT" shall mean a LICENSED PRODUCT sold for treatment of osteoarthritis pursuant to a marketing approval from the FDA, European Medicines Agency or comparable foreign regulatory authority.

1.12 "ROYALTY TERM" shall mean with respect to a particular ROYALTY PRODUCT, the period commencing on the first commercial sale of such ROYALTY PRODUCT and continuing on a country-by-country basis, until the earlier of (i) such time as neither the manufacture, sale nor use of such ROYALTY PRODUCT would infringe a VALID CLAIM in the country in which such ROYALTY PRODUCT is sold, and (ii) such time as there is no U.S. or EP patent within the PATENT RIGHTS containing a NEOCHONDROGENESIS CLAIM.

1.13 "SUBLICENSEE(S)" as used herein in either singular or plural shall mean any person or entity other than an AFFILIATED COMPANY to which Company or an AFFILIATED COMPANY has granted a sublicense under this Agreement.

1.14 "VALID CLAIM" shall mean either: (a) a claim of an issued and unexpired patent included within the PATENT RIGHTS which has not been revoked or held unenforceable, unpatentable or invalid by a decision of a court or other governmental agency of competent jurisdiction, unappealable or unappealed within the time allowed for appeal, and which has not been disclaimed, denied or admitted to be invalid or unenforceable through reexamination, reissue, disclaimer or otherwise; or (b) a claim of a pending patent application included within the PATENT RIGHTS, which claim has not been abandoned or finally disallowed without the possibility of appeal or refiling of such application, and has been pending for less than five (5) years from the date such claim takes priority, unless and so long as the claim is still being pursued with reasonable diligence, in which case less than seven (7) years; in each case to the extent such pending claim has not been (i) canceled, (ii) withdrawn from consideration, (iii) finally determined to be unallowable by the applicable governmental authority (and from which no appeal is or can be taken), or (iv) abandoned. Determination of whether a claim of any patent

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within the PATENT RIGHTS is a VALID CLAIM shall be made on a country-by-country or jurisdiction-by- jurisdiction basis and shall be based solely on the decisions of the patent office and/or the courts having jurisdiction within that particular country or jurisdiction. For purposes of this Agreement, any decision adverse to the PATENT RIGHTS in a particular country or jurisdiction shall not affect said PATENT RIGHTS in any other country or jurisdiction.

ARTICLE 2 LICENSE GRANT

2.1 Grant. Subject to the terms and conditions of this Agreement, JHU hereby grants to Company

(i) a world-wide EXCLUSIVE LICENSE to research, have researched, develop, have developed, make, have made, use, have used, import, have imported, offer for sale, have offered for sale, sell and have sold the LICENSED PRODUCT(S) in the United States and worldwide under the PATENT RIGHTS in the LICENSED FIELD, and

(ii) a world-wide nonexclusive license to use the KNOW HOW AND MATERIALS in the LICENSED FIELD.

This Grant shall apply to the Company and any AFFILIATED COMPANY. If any AFFILIATED COMPANY exercises rights under this Agreement, such AFFILIATED COMPANY shall be bound by all terms and conditions of this Agreement, including but not limited to indemnity and insurance provisions and royalty payments, which shall apply to the exercise of the rights, to the same extent as would apply had this Agreement been directly between JHU and the AFFILIATED COMPANY. In addition, Company shall remain fully liable to JHU for all acts and obligations of AFFILIATED COMPANY such that acts of the AFFILIATED COMPANY shall be considered acts of the Company. KNOW HOW AND MATERIALS may be transferred by JHU to Company from time-to-time, provided that it is understood that JHU shall not be obligated to make any such transfers.

2.2 Sublicense. Company may grant and authorize sublicenses through multiple tiers under the licenses granted to it pursuant to Paragraph 2.1, subject to the terms and conditions of this Paragraph 2.2. As a condition to its validity and enforceability, each sublicense agreement shall: (a) reference and give recognition to this Agreement, (b) be consistent with the terms, conditions and limitations of this Agreement, (c) name JHU as an intended third party beneficiary of the obligations of SUBLICENSEE with respect to provisions to be included in the sublicense agreement for JHU's benefit in accordance with subsection (d) below, in each case without imposition of obligation or liability on the part of JHU or its Inventors to the SUBLICENSEE, and (d) specifically incorporate Paragraphs 6.2 "Representations by JHU", 7.1 "Indemnification", 10.1 "Use of Name", 10.4 "Product Liability" into the body of the sublicense agreement, and cause the terms used therein to have the same meaning as in this Agreement, provided that notwithstanding the terms of Paragraph 10.4, SUBLICENSEE, if it is an organization with a market capitalization in excess of [***] US Dollars (USD\$[***]), may self insure so long as SUBLICENSEE represents and warrants that it is self insured for potential amounts payable pursuant to obligations under this Agreement, shall have the right to self-insure to the extent consistent with its normal business practices. Company shall provide to JHU a copy

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of each fully executed sublicense agreement, within thirty (30) days of execution by both Company and proposed SUBLICENSEE, provided that Company may redact from such copy any confidential terms that are not necessary to determine compliance with this Agreement. To the extent that any terms, conditions or limitations of any sublicense agreement are inconsistent with this Agreement, those terms, conditions and limitations are null and void against JHU.

2.3 Government Rights. The United States Government may have acquired a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the inventions described in PATENT RIGHTS throughout the world. To the extent that the inventions claimed in the PATENT RIGHTS were funded by grants, awards or contracts with the United States government, the rights granted herein are additionally subject to: (i) the requirement that any LICENSED PRODUCT(S) produced for use or sale within the United States shall be substantially manufactured in the United States (unless a waiver under 35 USC § 204 or equivalent is granted by the appropriate United States government agency), (ii) the right of the United States government to require JHU, or its licensees, including Company, to grant sublicenses to responsible applicants on reasonable terms when necessary to fulfill health or safety needs, and, (iii) other rights acquired by the United States government under the laws and regulations applicable to the grant/contract award under which the inventions were made.

ARTICLE 3 FEES, ROYALTIES & PAYMENTS

3.1 Minimum Annual Royalties. Company shall pay to JHU minimum annual royalties as set forth in Exhibit A. These minimum annual royalties shall be due, without invoice from JHU, within sixty (60) days of December 31 of each year, commencing with December 31, 2020. Running royalties accrued under Paragraph 3.2 and milestones accrued under Paragraph 3.5 and paid to JHU during each calendar year, commencing with calendar year 2020 shall be credited against the minimum annual royalties due at the end of such calendar year.

3.2 Running Royalties. Company shall pay to JHU a running royalty in accordance with Exhibit A for each ROYALTY PRODUCT sold by Company, AFFILIATED COMPANIES and SUBLICENSEES during the ROYALTY TERM. Such payments shall be made quarterly, as set forth in subsection 5.1(a). All non-US taxes related to LICENSED PRODUCT(S) sold under this Agreement shall be paid by Company and shall not be deducted from royalty or other payments due to JHU, but shall be deducted from gross sales revenues in the calculation of NET SALES to the extent such taxes have been included in gross sales revenues and fees. JHU shall be responsible for paying any and all taxes (other than withholding taxes or deduction of tax at source required by applicable law to be paid by Company) levied on it by account of its receipt of any payments it receives under this Agreement. If applicable laws require that taxes be withheld or deducted at source from any amounts due to JHU under this Agreement, the Company shall (a) deduct these taxes from the remittable amount, (b) pay the taxes to the proper taxing authority, and (c) deliver to JHU a statement including the amount of tax withheld and justification therefor, and such other information as may be necessary for tax credit purposes. Company shall cooperate with JHU in any action by JHU for a refund of such taxes withheld.

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In order to insure JHU the full royalty payments contemplated hereunder, Company agrees that in the event any ROYALTY PRODUCT(S) shall be sold by the Company to an AFFILIATED COMPANY, by an AFFILIATED COMPANY to the Company, or among AFFILIATED COMPANIES the royalties to be paid hereunder for such LICENSED PRODUCT(S) shall be based upon the greater of: 1) the NET SALES at which the purchaser of ROYALTY PRODUCT(S) resells such product to the end user, or 2) the NET SALES of ROYALTY PRODUCT(S) paid by the purchaser (either COMPANY or AFFILIATED COMPANY in this case). Notwithstanding the foregoing, no royalties shall be payable under this Paragraph 3.2 with respect to sales of ROYALTY PRODUCT(S) for use in research and/or development, in clinical trials or as samples.

In the event that consideration in lieu of money is received by Company, an AFFILIATED COMPANY or SUBLICENSEE from the sale of LICENSED PRODUCT(S), the fair market value of such consideration shall be included in the determination of NET SALES for such sale. Such fair market value shall be determined by the Company or AFFILIATED COMPANY, as applicable, in good faith.

3.3 Partnership Proceeds. In addition to the running royalty as set forth under Paragraph 3.2, Company shall pay to JHU a percentage of PARTNERSHIP PROCEEDS as set forth in Exhibit A. This percentage of PARTNERSHIP PROCEEDS shall be due, without the need for invoice from JHU, within sixty (60) days after the end of each calendar quarter in which PARTNERSHIP PROCEEDS are received.

3.4 Equity. Within thirty (30) days of achievement of the triggering events described in Exhibit A and subject to JHU's execution and delivery to Company of a Stock Issuance Agreement in substantially the form attached hereto as Exhibit E, Company shall issue to JHU the number of shares of Company common stock as set forth in Exhibit A (which number of shares shall be subject to adjustment for any stock split, reverse stock split, stock dividend, recapitalization or similar action impacting Company's capitalization as further described in the Stock Issuance Agreement).

3.5 Milestones. Company shall pay to JHU the development and sales milestones as set forth in Exhibit A. Development milestones shall be due, without invoice from JHU, within sixty (60) days of achievement of such milestone. Sales milestones shall be due, without invoice from JHU, within ninety (90) days following the close of the calendar year in which they are achieved.

3.6 Patent Reimbursement. In the event Company licenses JHU Owned Patent Rights, Company will reimburse JHU for the costs associated with preparing, filing, maintaining and prosecuting JHU Owned Patent Rights both incurring before the EFFECTIVE DATE and thereafter for the TERM of this AGREEMENT. Company will reimburse within sixty (60) days of the receipt of invoice from JHU, for all such costs.

3.7 Form of Payment. All payments under this Agreement shall be made in U.S. Dollars by either check or wire transfer.

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3.8 Payment Information. All check payments from Company to JHU shall be sent to:

Director
Johns Hopkins Technology Ventures
The Johns Hopkins University
100 N. Charles Street, 5th Floor
Baltimore, MD 21201
Attn: JHU Agrmt# A30652

or such other addresses which JHU may designate in writing from time to time. Checks are to be made payable to "The Johns Hopkins University".

Wire transfers may be made through:

[***]
(JHU Agrmt. #A30652)
Attn: Financial Manager

Company shall be responsible for any and all costs associated with wire transfers.

Via ACH
Johns Hopkins University Central Lockbox
[***]

3.9 Late Payments. In the event that any payment due hereunder is not made when due, the payment shall accrue interest beginning on the tenth day following the due date thereof, calculated at the annual rate of the sum of (a) two percent (2%) plus (b) the prime interest rate quoted by The Wall Street Journal on the date said payment is due, the interest being compounded on the last day of each calendar quarter, provided however, that in no event shall said annual interest rate exceed the maximum legal interest rate for corporations. Each such payment when made shall be accompanied by all interest so accrued. Said interest and the payment and acceptance thereof shall not negate or waive the right of JHU to seek any other remedy, legal or equitable, to which it may be entitled because of the delinquency of any payment including, but not limited to termination of this Agreement as set forth in Paragraph 9.2, subject to the cure provisions set forth therein.

ARTICLE 4 PATENT PROSECUTION, MAINTENANCE, & INFRINGEMENT

4.1 Prosecution & Maintenance.

(a) Company shall be responsible, at its expense, for filing, prosecuting and maintaining all jointly owned patents and patent applications within the PATENT RIGHTS ("JOINTLY OWNED PATENT RIGHTS") using counsel of its choice. Company shall have control over all patent matters in connection with the JOINTLY OWNED PATENT RIGHTS, provided however, that Company shall (i) cause its patent counsel to timely copy JHU on all correspondence regarding strategy, filing and prosecution of all patents and patent applications within the JOINTLY OWNED PATENT RIGHTS, between Company's patent counsel and any

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patent office, including without limitation all official actions and written correspondence with any patent office, and (ii) allow JHU an opportunity to comment and advise Company in advance of any patent filings or major prosecution events. Notwithstanding the foregoing, if JHU disagrees with Company regarding the prosecution strategy Company is pursuing with respect to a NEOCHONDROGENESIS CLAIM and the parties are unable to resolve such disagreement despite their using good faith efforts to do so, JHU shall have the right to refer such dispute to a mutually selected neutral third party for resolution. Company shall reasonably consider all comments and advice provided by JHU. If at any time Company determines that it does not wish to file a patent application in any particular country or to pay the expenses associated with prosecuting or maintaining any patent application or patent within the JOINTLY OWNED PATENT RIGHTS in any particular country, Company shall provide JHU with written notice at least thirty (30) days in advance of any filing or response deadline, or fee due date. Upon such notification, JHU may file, prosecute, and/or maintain such patent applications or patent in such country at its own expense. If JHU elects to exercise its back-up rights under the preceding sentence to file, prosecute or maintain any patent application or patent within JOINTLY OWNED PATENT RIGHTS in a Major Country, Company's license with respect to such patent applications or patent shall terminate in such country. As used in this subsection 4.1(a), "Major Country" shall mean the United States, Canada, United Kingdom, France, Germany, Italy, Spain, Australia and Japan.

(b) JHU, at Company's expense, shall file, prosecute and maintain all patents and patent applications within the PATENT RIGHTS that are solely owned by JHU ("JHU OWNED PATENT RIGHTS") using counsel of JHU's choice reasonably acceptable to Company and, subject to the terms and conditions of this Agreement, Company shall be licensed thereunder. Title to all such patents and patent applications shall reside in JHU. JHU shall have control over all patent matters in connection with the JHU OWNED PATENT RIGHTS, provided however, that JHU shall (i) cause its patent counsel to timely copy Company on all correspondence regarding strategy, filing and prosecution of all patents and patent applications within the PATENT RIGHTS, between JHU's patent counsel and JHU and/or any patent office, including without limitation all official actions and written correspondence with any patent office, and (ii) allow Company an opportunity to comment and advise JHU in advance of any patent filings or major prosecution events. JHU shall consider and reasonably incorporate all comments and advice unless detrimental to JHU's intellectual property rights. By concurrent written notification to JHU and its patent counsel at least thirty (30) days in advance (or later at JHU's discretion) of any filing or response deadline, or fee due date, Company may elect not to have a patent application filed in any particular country or not to pay expenses associated with prosecuting or maintaining any patent application or patent, provided that Company pays for all costs incurred up to JHU's receipt of such notification. Failure to provide such notification can be considered by JHU to be Company's authorization to proceed at Company's expense. Upon such notification, JHU may file, prosecute, and/or maintain such patent applications or patent in such country at its own expense and for its own benefit, and in the event the affected patent applications or patents are in a Major Country, the rights or license granted hereunder held by Company, AFFILIATED COMPANIES or SUBLICENSEE(S) relating to such patent applications or patent shall terminate in such Major Country.

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4.2 Notification. Each party will notify the other promptly in writing when any infringement by another is uncovered or suspected.

4.3 Infringement. Company shall have the first right to enforce any patent within PATENT RIGHTS against any infringement or alleged infringement thereof, and, if such enforcement action is against a COMPETING PRODUCT, shall at all times keep JHU informed as to the status thereof. Before Company commences an action with respect to any infringement of such patents, Company shall give careful consideration to the views of JHU and to potential effects on the public interest in making its decision whether or not to sue. Thereafter, Company may, at its own expense, institute suit against any such infringer or alleged infringer and control and defend such suit in a manner consistent with the terms and provisions hereof and recover any damages, awards or settlements resulting therefrom, subject to Paragraph 4.5. If required by law, JHU shall permit action under this Paragraph to be brought in its name, including being joined as party-plaintiff. However, no settlement, consent judgment or other voluntary final disposition of the suit against a COMPETING PRODUCT that concedes the invalidity or unenforceability of any patent within PATENT RIGHTS may be entered into without the prior written consent of JHU, which consent shall not be unreasonably withheld. This right to sue for infringement shall not be used in an arbitrary or capricious manner. JHU shall reasonably cooperate in any such litigation at Company's expense. Company may delegate its right to enforce the PATENT RIGHTS under this Paragraph 4.3 to AFFILIATED COMPANIES or SUBLICENSEES, provided that such AFFILIATED COMPANIES and SUBLICENSEES agree to comply with the applicable terms of this Paragraph 4.3.

If within ninety (90) days following a request by JHU that Company take action to abate any commercially significant infringement of a patent within the JHU OWNED PATENT RIGHTS by a COMPETING PRODUCT, such infringing activity has not been abated and if Company has not brought suit against the infringer or begun negotiations regarding the terms under which Company would grant a sublicense to the infringer, then JHU may, in its sole judgment and at its own expense, take steps to enforce any patent within the JHU OWNED PATENT RIGHTS against such COMPETING PRODUCT and control, settle, and defend such suit in a manner consistent with the terms and provisions hereof, and recover, for its own account, any damages, awards or settlements resulting therefrom. However, no settlement, consent judgment or other voluntary final disposition of the suit that concedes the invalidity or unenforceability of any patent within PATENT RIGHTS may be entered into without the prior written consent of Company, which consent shall not be unreasonably withheld. As used in this Article 4, "COMPETING PRODUCT" means a product for treatment of osteoarthritis sold by a third party without authorization from Company, the manufacture, use or sale of which would infringe one or more claims of an issued valid patent within the PATENT RIGHTS.

4.4 Patent Invalidation Suit. If a declaratory judgment action is brought naming Company as a defendant and alleging invalidity of any of the JHU OWNED PATENT RIGHTS, JHU may elect to take over the sole defense of the action at its own expense. Each Party shall cooperate fully with the other in connection with any such action.

4.5 Recovery. In the event of a recovery by Company pursuant to any enforcement action brought by Company under Paragraph 4.3 against a COMPETING PRODUCT, Company

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shall, to the extent that there is at the time such recovery is obtained a pending or issued NEOCHONDROGENSIS CLAIM, pay to JHU [***] percent ([**%]) of the recovery, net of all reasonable costs and expenses associated with each suit or settlement. If the cost and expenses of such action exceed the recovery, then [***] ([**%]) of the excess shall be credited against royalties payable by Company to JHU hereunder in connection with sales of ROYALTY PRODUCTS covered in the PATENT RIGHTS which are the subject of the infringement suit, in the country of such legal proceedings, provided, however, that any such credit under this Paragraph shall not exceed [***] percent ([**%]) of the royalties otherwise payable to JHU with regard to sales in the country of such action in any one calendar year, with any excess credit being carried forward to future calendar years.

4.6 Cooperation. Each party agrees to cooperate in any action under this Article which is controlled by the other party, provided that the controlling party reimburses the cooperating party promptly for any costs and expenses incurred by the cooperating party in connection with providing such assistance.

ARTICLE 5 OBLIGATIONS OF THE PARTIES

5.1 Reports. Company shall provide to JHU the following written reports according to the following schedules.

(a) Company shall provide quarterly Royalty Reports, substantially in the format of Exhibit B and due within sixty (60) days of the end of each calendar quarter following the first commercial sale of a ROYALTY PRODUCT by Company, an AFFILIATED COMPANY or a SUBLICENSEE(S). Royalty Reports shall disclose (i) the amount of ROYALTY PRODUCT(S) sold, the total NET SALES of such ROYALTY PRODUCT(S) received by Company, AFFILIATED COMPANIES and SUBLICENSEES, and the running royalties due to JHU as a result of NET SALES by Company and AFFILIATED COMPANIES thereof, and (ii) the amount of PARTNERSHIP PROCEEDS received and the percentage thereof payable to JHU pursuant to Paragraph 3.3. Payment of any such royalties and percentage of PARTNERSHIP PROCEEDS due shall accompany such Royalty Reports.

(b) Until Company, an AFFILIATED COMPANY or a SUBLICENSEE(S) has achieved a first commercial sale of a LICENSED PRODUCT, or received FDA market approval, Company shall provide semiannual Diligence Reports, due within sixty (60) days of the end of every June and December following the EFFECTIVE DATE of this Agreement. These Diligence Reports shall describe Company's, AFFILIATED COMPANIES' and any SUBLICENSEE(S)'s technical efforts towards meeting its obligations under the terms of this Agreement.

(c) Company shall provide Annual Reports within sixty (60) days of the end of every December following the EFFECTIVE DATE of this Agreement. Annual Reports shall include:

- (i) evidence of insurance as required under Paragraph 10.4, or, a statement of why such insurance is not currently required, and
- (ii) identification of all AFFILIATED COMPANIES which have exercised rights pursuant to Paragraph 2.1, or, a statement that no AFFILIATED COMPANY has exercised such rights, and

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(iii) notice of all FDA approvals of any LICENSED PRODUCT(S) obtained by COMPANY, AFFILIATED COMPANY or SUBLICENSEE, the patent(s) or patent application(s) licensed under this Agreement upon which such product is based, and the commercial name of such product, or, in the alternative, a statement that no FDA approvals have been obtained.

5.2 Records. Company shall make and retain, for a period of three (3) years following the period of each report required by Paragraph 5.1, true and accurate records, files and books of account containing all the data reasonably required for the full computation and verification of sales and other information required in Paragraph 5.1. Such books and records shall be in accordance with generally accepted accounting principles consistently applied. Company shall permit the inspection of such records, files and books of account by an independent certified public accountant selected by JHU and acceptable to Company in its reasonable judgment during regular business hours upon ten (10) business days' written notice to Company. Such inspection shall not be made more than once each calendar year. All costs of such inspection shall be paid by JHU, provided that if any such inspection shall reveal that an error in Company's favor has been made in the amount of payments hereunder for any calendar year equal to [***] percent ([***]%) or more of such payments, such costs shall be borne by Company.

5.3 Commercially Reasonable Efforts. Company shall exercise commercially reasonable efforts to develop and to introduce the LICENSED PRODUCT(S) into the commercial market, through itself, its AFFILIATED COMPANIES and/or its SUBLICENSEE(S), consistent with sound and reasonable business practice and judgment.

Following the introduction of a LICENSED PRODUCT into the commercial market, and until the expiration or termination of this Agreement, Company shall endeavor to keep LICENSED PRODUCT(S) reasonably available to the public consistent with sound and reasonable business practice and judgment.

5.4 Patent Acknowledgement. Company agrees that all packaging containing individual LICENSED PRODUCT(S) sold by Company, AFFILIATED COMPANIES and SUBLICENSEE(S) of Company will be marked with the number of the applicable patent(s) licensed hereunder in accordance with each country's patent laws to the extent reasonably practical.

ARTICLE 6 REPRESENTATIONS

6.1 Duties of the Parties. JHU is not a commercial organization. It is an institute of research and education. Therefore, JHU has no ability to evaluate the commercial potential of any PATENT RIGHTS or LICENSED PRODUCT or other license or rights granted in this Agreement. It is therefore incumbent upon Company to evaluate the rights and products in question, to examine the materials and information provided by JHU, and to determine for itself the validity of any PATENT RIGHTS, its freedom to operate, and the value of any LICENSED PRODUCTS or other rights granted.

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6.2 Representations by JHU. JHU warrants that (a) it has good and marketable title to its interest in the inventions claimed under PATENT RIGHTS with the exception of certain retained rights of the United States Government, which may apply if any part of the JHU research was funded in whole or in part by the United States Government and (b) that Johns Hopkins Technology Ventures has not granted any rights or licenses that may conflict with the rights and licenses granted herein. JHU does not warrant the validity of any patents or that practice under such patents shall be free of infringement. EXCEPT AS EXPRESSLY SET FORTH IN THIS PARAGRAPH 6.2, (I) COMPANY, AFFILIATED COMPANIES AND SUBLICENSEE(S) AGREE THAT THE PATENT RIGHTS ARE PROVIDED "AS IS", AND THAT JHU MAKES NO REPRESENTATION OR WARRANTY WITH RESPECT TO THE PERFORMANCE OF LICENSED PRODUCT(S) INCLUDING THEIR SAFETY, EFFECTIVENESS, OR COMMERCIAL VIABILITY, AND (II) JHU DISCLAIMS ALL WARRANTIES WITH REGARD TO PRODUCT(S) LICENSED UNDER THIS AGREEMENT, INCLUDING, BUT NOT LIMITED TO, ALL WARRANTIES, EXPRESSED OR IMPLIED, OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE. NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, JHU ADDITIONALLY DISCLAIMS ALL OBLIGATIONS AND LIABILITIES ON THE PART OF JHU AND INVENTORS, FOR DAMAGES, INCLUDING, BUT NOT LIMITED TO, DIRECT, INDIRECT, SPECIAL, AND CONSEQUENTIAL DAMAGES, ATTORNEYS' AND EXPERTS' FEES, AND COURT COSTS (EVEN IF JHU HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, FEES OR COSTS), ARISING OUT OF OR IN CONNECTION WITH THE MANUFACTURE, USE, OR SALE OF THE PRODUCT(S) LICENSED UNDER THIS AGREEMENT. COMPANY, AFFILIATED COMPANIES AND SUBLICENSEE(S) ASSUME ALL RESPONSIBILITY AND LIABILITY FOR LOSS OR DAMAGE CAUSED BY A PRODUCT MANUFACTURED, USED, OR SOLD BY COMPANY, ITS SUBLICENSEE(S) AND AFFILIATED COMPANIES WHICH IS A LICENSED PRODUCT AS DEFINED IN THIS AGREEMENT.

ARTICLE 7 INDEMNIFICATION

7.1 Indemnification. JHU and the Inventors would have no legal liability exposure to third parties if JHU did not license the LICENSED PRODUCT(S), and any royalties JHU and the Inventors may receive is not adequate compensation for such legal liability exposure. Therefore, JHU requires Company to protect JHU and Inventors from such exposure to the same manner and extent to which insurance, if available, would protect JHU and Inventors. Furthermore, JHU and the Inventors will not, under the provisions of this Agreement or otherwise, have control over the manner in which Company or its AFFILIATED COMPANIES or its SUBLICENSEE(S) or those operating for its account or third parties who purchase LICENSED PRODUCT(S) from any of the foregoing entities, develop, manufacture, market or practice the inventions of LICENSED PRODUCT(S). Therefore, Company, AFFILIATED COMPANY and SUBLICENSEE, each solely with respect to its own practice of such Inventions, shall indemnify, defend with counsel reasonably acceptable to JHU, and hold JHU, The Johns Hopkins Health Systems, their present and former trustees, officers, Inventors of PATENT RIGHTS, agents, faculty, employees and students harmless as against any judgments, fees, expenses, or other costs arising from or incidental to any product liability or other lawsuit,

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claim, demand or other action brought by a third party as a consequence of its own practice of said inventions, whether or not JHU or said Inventors, either jointly or severally, is named as a party defendant in any such lawsuit and whether or not JHU or the Inventors are alleged to be negligent or otherwise responsible for any injuries to persons or property, except and to the extent that such judgments, fees, expenses or other costs arise from or are related to (i) an alleged breach by JHU of any of the representations or warranties set forth in Paragraph 6.2, or (ii) JHU having granted conflicting rights under the PATENT RIGHTS to a third party. Practice of the inventions covered by LICENSED PRODUCT(S), by an AFFILIATED COMPANY, SUBLICENSEE, or an agent or a third party on behalf of or for the account of Company or by a third party who purchases LICENSED PRODUCT(S) from Company, shall be considered Company's practice of said inventions for purposes of this Paragraph. The obligation of Company to defend and indemnify as set out in this Paragraph shall survive the termination of this Agreement, shall continue even after assignment of rights and responsibilities to an affiliate or sublicensee, and shall not be limited by any other limitation of liability elsewhere in this Agreement. JHU shall (a) provide prompt written notice to Company of any claim, demand or action arising out of the indemnified activities after JHU has knowledge of such claim, demand or action; (b) permit Company to assume full responsibility to investigate, prepare for and defend against any such claim or demand; (c) assist Company, at Company's reasonable expense, in the investigation of, preparation for and defense of any such claim or demand; and (d) not compromise or settle such claim or demand without Company's written consent.

ARTICLE 8 CONFIDENTIALITY

8.1 Confidentiality. If necessary, the parties will exchange information, which they consider to be confidential. The recipient of such information agrees to accept the disclosure of said information which is marked as confidential at the time it is sent to the recipient, and to employ all reasonable efforts to maintain such information ("Confidential Information") secret and confidential, such efforts to be no less than the degree of care employed by the recipient to preserve and safeguard its own confidential information, and in any event no less than a reasonable degree of care. Except in connection with the activities contemplated by this Agreement, Confidential Information disclosed by a party to the other party shall not be used by the receiving party and shall not be disclosed or revealed to anyone except employees, consultants, collaborators, investors and prospective investors of the recipient who have a need to know the information and who have entered into a secrecy agreement with the recipient under which such employees are required to maintain confidential the proprietary information of the recipient and such employees shall be advised by the recipient of the confidential nature of the information and that the information shall be treated accordingly.

The obligations of this Paragraph 8.1 shall also apply to AFFILIATED COMPANIES and/or SUBLICENSEE(S) provided such information of JHU by Company. JHU's, Company's, AFFILIATED COMPANIES, and SUBLICENSEES' obligations under this Paragraph 8.1 shall extend until three (3) years after the termination of this Agreement.

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8.2 Exceptions. The recipient's obligations under Paragraph 8.1 shall not extend to any part of the information:

- a. that can be demonstrated to have been in the public domain or publicly known and readily available to the trade or the public prior to the date of the disclosure; or
- b. that can be demonstrated, from written records to have been in the recipient's possession or readily available to the recipient from another source not under obligation of secrecy to the disclosing party prior to the disclosure; or
- c. that becomes part of the public domain or publicly known by publication or otherwise, not due to any unauthorized act by the recipient; or
- d. that is demonstrated from written records to have been developed by or for the receiving party without reference to confidential information disclosed by the disclosing party.

8.3 Permitted Use. The receiving party may use or disclose Confidential Information of the disclosing party to the extent necessary to exercise its rights hereunder (including in the case of Company, commercialization and/or sublicensing of LICENSED PRODUCTS) or fulfill its obligations and/or duties hereunder and in filing for, prosecuting or maintaining any proprietary rights, prosecuting or defending litigation, complying with applicable governmental regulations and/or submitting information to tax, regulatory agencies or other governmental authorities; provided that if the receiving party is required by law to make any public disclosures of Confidential Information of the disclosing party, to the extent it may legally do so, it will give reasonable advance notice to the disclosing party of such disclosure and will use its reasonable efforts to secure confidential treatment of Confidential Information prior to its disclosure (whether through protective orders or otherwise).

8.4 Confidential Terms. Except as expressly provided herein, each party agrees not to disclose any terms of this Agreement to any third party without the consent of the other party, except (a) as required by securities or other applicable laws or by the disclosure requirements of any securities exchange or other stock market on which a party's securities are or are to be traded, (b) to prospective and other investors, SUBLICENSEES and acquirers and (c) to such party's accountants, attorneys and other professional advisors. Additionally, Company consents to (i) JHU's disclosure of the terms and conditions of this Agreement to all INVENTORS upon their request, and (ii) JHU's acknowledging to third parties the existence of this Agreement and the extent of the licenses granted to LICENSEE and AFFILIATES under Article 3 hereof.

8.5 Right to Publish. JHU may publish manuscripts, abstracts or the like describing the inventions disclosed in the PATENT RIGHTS, subject to the terms set forth below. To avoid loss of patent rights as a result of premature public disclosure of patentable information and/or inadvertent disclosure of Company CONFIDENTIAL INFORMATION, JHU agrees to submit to Company, at least sixty (60) days prior to submission for publication or disclosure, materials intended for publication or disclosure describing the inventions disclosed in the PATENT

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RIGHTS. Company shall notify JHU within thirty (30) days of receipt of such materials whether or not Company (a) desires to file (or have filed) pursuant to Paragraph 4.1 a patent application on any invention disclosed in such materials to in order to protect such invention(s) in advance of publication or public disclosure or (b) believes that such materials contain CONFIDENTIAL INFORMATION of Company that Company wishes to have removed from the publication. In the event that Company informs JHU within such thirty (30) day period that it desires to file (or have filed) a patent application on any invention disclosed in such materials, JHU agrees to withhold publication and disclosure of such materials until such time as (i) a patent application claiming and disclosing such invention has been filed or, (ii) sixty (60) days have elapsed since the materials intended for publication or disclosure were submitted to Company for review, whichever occurs first. In the event that within such thirty (30) day period Company requests that JHU remove Company's CONFIDENTIAL INFORMATION from such materials, JHU agrees to remove all CONFIDENTIAL INFORMATION identified by Company prior to making such filing or disclosure. Subject to foregoing, JHU and Inventors shall be free to publish manuscripts and abstracts or the like directed to work done at JHU related to the PATENT RIGHTS, KNOW-HOW AND MATERIALS.

ARTICLE 9 TERM & TERMINATION

9.1 Term. The term of this Agreement shall commence on the EFFECTIVE DATE and shall continue, in each country, until the date of expiration of the last to expire patent included within PATENT RIGHTS in that country or if no patents issue then for a term of twenty (20) years from the EFFECTIVE DATE of this Agreement. Company's license to the KNOW-HOW AND MATERIALS, as well as Company's right to use JHU confidential information under Paragraph 8.1, shall survive the expiration, (but not an earlier termination) of this Agreement.

9.2 Termination By Either Party. This Agreement may be terminated by either party, in the event that the other party (a) files or has filed against it a petition under the Bankruptcy Act that is not dismissed within sixty (60) days, makes an assignment for the benefit of creditors, has a receiver appointed for it or a substantial part of its assets and such receivership is not terminated within sixty (60) days, or otherwise takes advantage of any statute or law designed for relief of debtors or (b) fails to perform or otherwise breaches any of its obligations hereunder, if, following the giving of notice by the terminating party of its intent to terminate and stating the grounds therefor, the party receiving such notice shall not have cured the failure or breach within sixty (60) days; provided, however, that in the event the party receiving the notice disputes the alleged failure to perform or breach in good faith, such sixty (60) day cure period shall commence upon determination by a court of competent jurisdiction (or arbitrator if the parties agree to arbitrate the matter) that the alleged failure to perform or breach exists. In no event, however, shall such notice or intention to terminate be deemed to waive any rights to damages or any other remedy which the party giving notice of breach may have as a consequence of such failure or breach.

9.3 Termination by Company. Company may terminate this Agreement and the license granted herein, for any reason, upon giving JHU ninety (90) days written notice.

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Company may terminate its license with respect to any particular patent or patent application, or as to any particular LICENSED PRODUCT, with 60 days' notice to JHU. From and after the effective date of a termination under this Paragraph 9.3 with respect to a particular patent or application, such patent(s) and patent application(s) in the particular country shall cease to be within the PATENT RIGHTS for all purposes of this Agreement, and all rights and obligations of Company under this Agreement with respect to such patent(s) and patent application(s) shall terminate and Exhibit D shall be considered amended accordingly. Company will not be required to reimburse JHU for patent costs incurred after the 60-day notice period for such patents or patent applications. From and after the effective date of a termination under this Paragraph 9.3 with respect to a particular LICENSED PRODUCT, the license granted under Paragraph 2.1 above shall terminate with respect to such LICENSED PRODUCT, and the same shall cease to be a LICENSED PRODUCT for all purposes of this Agreement. Upon a termination of this Agreement in its entirety under this Paragraph 9.3, all rights and obligations of the parties shall terminate, except as provided in Paragraph 9.4 below.

9.4 Obligations and Duties upon Termination. If this Agreement is terminated, both parties shall be released from all obligations and duties imposed or assumed hereunder to the extent so terminated, except as expressly provided to the contrary in this Agreement. Upon termination, both parties shall cease any further use of the confidential information disclosed to the receiving party by the other party. Termination of this Agreement, for whatever reason, shall not affect the obligation of either party to make any payments for which it is liable prior to or upon such termination. Termination shall not affect JHU's right to recover unpaid royalties, fees, reimbursement for patent expenses, or other forms of financial compensation incurred prior to termination. Upon termination Company shall submit a final royalty report to JHU and any royalty payments, fees, unreimbursed patent expenses and other financial compensation due JHU shall become immediately payable. Notwithstanding any other provision of this Agreement, upon termination of this Agreement, any sublicenses granted in accordance with Paragraph 2.2 shall survive and, upon request, each SUBLICENSEE shall become a direct licensee of JHU, provided that JHU's obligations to SUBLICENSEE(S) are no greater than JHU's obligations to Company under this Agreement and that such SUBLICENSEE'S obligations to JHU shall be no greater than Company's obligations to JHU under this Agreement. Company shall provide written notice of such to each SUBLICENSEE(S) with a copy of such notice provided to JHU.

ARTICLE 10 MISCELLANEOUS

10.1 Use of Name.

- 10.1.1 Except as specifically permitted in Sections 16.2.3, 16.2.4 and 16.2.5 below, nothing contained in this Agreement confers any right to either party hereto to use in advertising, publicity, or other promotional activities any name, trade name, trademark, or other designation of the other party hereto (including any contraction, abbreviation or simulation of any of the foregoing).

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- 10.1.2 Unless otherwise required by law, LICENSEE is prohibited from using the name “The Johns Hopkins University” or the name of any affiliate of the Johns Hopkins University, including but not limited to The Johns Hopkins Health System Corporation, or any of its hospitals or affiliates, or the names of any of their respective faculty, employees, students or INVENTORS, in advertising, publicity, or other promotional activities, without JHU’s prior written approval of such use.
- 10.1.3 LICENSEE hereby grants JHU permission to include LICENSEE’s name and a link to LICENSEE’s website in JHU’s annual reports and on JHU’s website to showcase technology transfer-related stories.
- 10.1.4 JHU shall have the right to list LICENSEE and display the logotype or symbol of LICENSEE on JHU’s website and on JHU publications as a licensee startup company based upon JHU technology.

10.2 No Partnership. Nothing in this Agreement shall be construed to create any agency, employment, partnership, joint venture or similar relationship between the parties other than that of a licensor/licensee. Neither party shall have any right or authority whatsoever to incur any liability or obligation (express or implied) or otherwise act in any manner in the name or on the behalf of the other, or to make any promise, warranty or representation binding on the other.

10.3 Notice of Claim. Each party shall give the other or its representative immediate notice of any suit or action filed, or prompt notice of any claim made, against them arising out of the performance of this Agreement or arising out of the practice of the inventions licensed hereunder.

10.4 Product Liability. Prior to initial human testing or first commercial sale of any LICENSED PRODUCT(S) as the case may be in any particular country, Company shall establish and maintain, covering the Company’s liability in each country in which Company, an AFFILIATED COMPANY or SUBLICENSEE(S) shall test or sell LICENSED PRODUCT(S), product liability or other appropriate insurance coverage in the minimum amount of [***] (\$[***]) per claim and will annually present evidence to JHU that such coverage is being maintained. Upon JHU’s request, Company will furnish JHU with a Certificate of Insurance of each product liability insurance policy obtained. JHU shall be listed as an additional insured in Company’s said insurance policies. If such Product Liability insurance is underwritten on a ‘claims made’ basis, Company agrees that any change in underwriters during the term of this Agreement will require the purchase of ‘prior acts’ coverage to ensure that coverage will be continuous throughout the term of this Agreement.

10.5 Governing Law. This Agreement shall be construed, and legal relations between the parties hereto shall be determined, in accordance with the laws of the State of Maryland applicable to contracts solely executed and wholly to be performed within the State of Maryland without giving effect to the principles of conflicts of laws. Any disputes between the parties to this Agreement shall be brought in the state or federal courts of Maryland. Both parties agree to waive their right to a jury trial.

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10.6 Notice. All notices or communication required or permitted to be given by either party hereunder shall be deemed sufficiently given if mailed by registered mail or certified mail, return receipt requested, or sent by overnight courier providing evidence of delivery, such as Federal Express, to the other party at its respective address set forth below or to such other address as one party shall give notice of to the other from time to time hereunder. Mailed notices shall be deemed to be received on the third business day following the date of mailing. Notices sent by overnight courier shall be deemed received the following business day.

If to Company: Unity Biotechnology, Inc.
3280 Brisbane Blvd
Brisbane CA 94005
Attn: CEO
(415) 328-5504

If to JHU: Director
Technology Ventures
Johns Hopkins University
100 N. Charles Street
5th Floor
Baltimore, MD 21201
Attn: Agrmt A30652

10.7 Compliance with All Laws. In all activities undertaken pursuant to this Agreement, both JHU and Company covenant and agree that each will in all material respects comply with such Federal, state and local laws and statutes, as may be in effect at the time of performance and all valid rules, regulations and orders thereof regulating such activities.

10.8 Successors and Assigns. Neither this Agreement nor any of the rights or obligations created herein, except for the right to receive any remuneration hereunder, may be assigned by either party, in whole or in part, without the prior written consent of the other party, except that either party shall be free to assign this Agreement in connection with its merger or consolidation or any sale of substantially all of its assets without the consent of the other. This Agreement shall bind and inure to the benefit of the successors and permitted assigns of the parties hereto.

10.9 No Waivers; Severability. No waiver of any breach of this Agreement shall constitute a waiver of any other breach of the same or other provision of this Agreement, and no waiver shall be effective unless made in writing. Any provision hereof prohibited by or unenforceable under any applicable law of any jurisdiction shall as to such jurisdiction be deemed ineffective and deleted herefrom without affecting any other provision of this Agreement. It is the desire of the parties hereto that this Agreement be enforced to the maximum extent permitted by law, and should any provision contained herein be held by any governmental agency or court of competent jurisdiction to be void, illegal and unenforceable, the parties shall negotiate in good faith for a substitute term or provision which carries out the original intent of the parties.

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10.10 Entire Agreement; Amendment. Company and JHU acknowledge that they have read this entire Agreement and that this Agreement, including the attached Exhibits constitutes the entire understanding and contract between the parties hereto and supersedes any and all prior or contemporaneous oral or written communications with respect to the subject matter hereof, all of which communications are merged herein. It is expressly understood and agreed that (i) there being no expectations to the contrary between the parties hereto, no usage of trade, verbal agreement or another regular practice or method dealing within any industry or between the parties hereto shall be used to modify, interpret, supplement or alter in any manner the express terms of this Agreement; and (ii) this Agreement shall not be modified, amended or in any way altered except by an instrument in writing signed by both of the parties hereto.

10.11 Delays or Omissions. Except as expressly provided herein, no delay or omission to exercise any right, power or remedy accruing to any party hereto, shall impair any such right, power or remedy to such party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or in any similar 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, shall be cumulative and not alternative.

10.12 Force Majeure. If either party fails to fulfill its obligations hereunder (other than an obligation for the payment of money), when such failure is due to an act of God, or other circumstances beyond its reasonable control, including but not limited to fire, flood, civil commotion, riot, war (declared and undeclared), revolution, or embargoes, then said failure shall be excused for the duration of such event and for such a time thereafter as is reasonable to enable the parties to resume performance under this Agreement, provided however, that in no event shall such time extend for a period of more than one hundred eighty (180) days.

10.13 Further Assurances. Each party shall, at any time, and from time to time, prior to or after the EFFECTIVE DATE of this Agreement, at reasonable request of the other party, execute and deliver to the other such instruments and documents and shall take such actions as may be required to more effectively carry out the terms of this Agreement.

10.14 Survival. All representations, warranties, covenants and agreements made herein and which by their express terms or by implication are to be performed after the execution and/or termination hereof, or are prospective in nature, shall survive such execution and/or termination, as the case may be. This shall include Paragraphs 3.7 (Late Payments), 5.2 (Records), and Articles 6, 7, 8, 9, and 10.

10.15 No Third Party Beneficiaries. Nothing in this Agreement shall be construed as giving any person, firm, corporation or other entity, other than the parties hereto and their successors and permitted assigns, any right, remedy or claim under or in respect of this Agreement or any provision hereof.

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10.16 Headings. Article headings are for convenient reference and not a part of this Agreement. All Exhibits are incorporated herein by this reference.

10.17 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which when taken together shall be deemed but one instrument.

IN WITNESS WHEREOF, this Agreement shall take effect as of the EFFECTIVE DATE when it has been executed below by the duly authorized representatives of the parties.

THE JOHNS HOPKINS UNIVERSITY

UNITY BIOTECHNOLOGY, INC.

/s/ Neil Veloso

Neil Veloso
Executive Director
Johns Hopkins Technology Ventures

/s/ Nathaniel David

Nathaniel David
Title:

11/3/2016

(Date)

11/3/2016

(Date)

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

I have read and agree to abide by the terms of this Agreement:

/s/ Jennifer Elisseeff

Dr. Jennifer Elisseeff

11/28/2016

Date

EXHIBIT A. LICENSE FEE & ROYALTIES.

EXHIBIT B. SALES & ROYALTY REPORT FORM.

EXHIBIT C. INTENTIONALLY LEFT BLANK.

EXHIBIT D. PATENT APPLICATIONS.

EXHIBIT E. FORM OF STOCK ISSUANCE AGREEMENT

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EXHIBIT A

FEES & ROYALTIES

1. **Minimum Annual Royalties:** The minimum annual royalties pursuant to Paragraph 3.1 are twelve thousand dollars (\$[***]).

2. **Royalties:** The running royalty rate payable by Company under Paragraph 3.2 for NET SALES of ROYALTY PRODUCTS by Company, AFFILIATED COMPANIES and SUBLICENSEES is:

<u>Portion of Annual Sales</u>	<u>Royalty Rate</u>
[***]	[***]
>[***]	[***]

For clarity, no royalty shall be payable with respect to NET SALES of ROYALTY PRODUCTS unless at such time as the applicable NET SALES accrue, there is within the PATENT RIGHTS either a U.S. or EP patent containing a NEOCHONDROGENESIS CLAIM.

If Company, its AFFILIATED COMPANY or SUBLICENSEE is required to pay a third party amounts with respect to a ROYALTY PRODUCT under agreements for patent rights or other technologies which Company, its AFFILIATED COMPANY or SUBLICENSEE, determines are necessary to license or acquire with respect to such ROYALTY PRODUCT, Company may deduct such amount owing to such third parties (prior to any reductions) from the royalty owing to JHU for the sale of such ROYALTY PRODUCT. Notwithstanding the foregoing, in no event shall the total aggregate amount payable to JHU in any royalty period be reduced to less than [***] percent ([***]%) of the amounts that would otherwise be due JHU in such royalty period, and (b) Company shall not be entitled to deduct any royalties or other payments made under the Existing Agreements. If, in any royalty period, Company is not able to fully recover its [***] percent ([***]%) portion of the payments due to a third party, it shall be entitled to carry forward such right of off-set to future semi-annual periods with respect to the excess amount. As used herein, "Existing Agreements means (a) that certain Exclusive License Agreement between Company and the Mayo Foundation for Medical Education and Research originally entered into by the parties effective June 28th, 2013; (b) that certain Exclusive License Agreement between Company and the Buck Institute for Research on Aging originally entered into by the parties effective February 3rd, 2014; (c) that certain Exclusive License Agreement between Company and the Board of Trustees of the University of Arkansas originally entered into by the parties effective April 28th, 2015, and (d) the Ascentage Agreements, where "Ascentage Agreements" means (i) that certain Compound Library and Option Agreement entered into by and between Company and Ascentage Pharma Group Corp. Ltd., ("Ascentage") as of February 2nd, 2016, (ii) that certain APG-1252 License Agreement entered into by and between Company and Ascentage as of February 2nd, 2016, and (iii) any Compound License Agreements entered into by and between Company and Ascentage as of the Effective Date of the definitive license agreement or at any time thereafter.

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3. Partnership Proceeds: The percent of PARTNERSHIP PROCEEDS payable under Paragraph 3.3 is [***]%, provided that:

Company shall only be obligated to share [***]% of that portion of the PARTNERSHIP PROCEEDS that exceeds the then current aggregate amount spent by Company on the development of the LICENSED PRODUCTS included in such sublicense as of the date such PARTNERSHIP PROCEEDS were received; and

Company's total payment obligations to JHU with respect to PARTNERSHIP PROCEEDS shall be capped at [***] U.S. Dollars (USD\$[***]).

4. Equity Grant. Company shall issue to JHU 65,000 shares of Company common stock upon the first to occur of (i) acceptance for review by the U.S. Food and Drug Administration of a new drug application for a Royalty Product, or (ii) or acceptance for review by the European Medicines Agency of a marketing approval application for a Royalty Product. The events described in subsections (i) and (ii) above, each a "triggering event".

Notwithstanding the foregoing, if at the time of the occurrence of the triggering event, there is not either a U.S. or EP patent within the PATENT RIGHTS containing a NEOCHONDROGENESIS CLAIM, then the issuance of shares of Company common stock shall be deferred until such time as there is a NEOCHONDROGENESIS CLAIM.

5. Milestones. The milestones payable under Paragraph 3.5 are:

Approval Milestones

- (i) [***] U.S. Dollars (USD\$[***]) upon first receipt by Company, an AFFILIATED COMPANY or SUBLICENSEE of marketing approval for a ROYALTY PRODUCT from the U.S. Food and Drug Administration.
- (ii) [***] U.S. Dollars (USD\$[***]) upon first receipt by Company, an AFFILIATED COMPANY or SUBLICENSEE of marketing approval for a ROYALTY PRODUCT from the European Medicines Agency.
- (iii) [***] U.S. Dollars (USD\$[***]) upon first receipt by Company, an AFFILIATED COMPANY or SUBLICENSEE of marketing approval for a ROYALTY PRODUCT from the Ministry Health Labor and Welfare in Japan.

Notwithstanding the foregoing, in the event that at the time of achievement of one or more of the foregoing development milestones there is not either a U.S. or EP patent within the PATENT RIGHTS containing a NEOCHONDROGENESIS CLAIM, then payment of such milestones shall be deferred until such time as there is a NEOCHONDROGENESIS CLAIM.

Each of the foregoing development milestone payments shall be payable only once and the overall payments due with respect to the foregoing milestones shall in no event exceed [***] U.S. Dollars (USD\$[***]).

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Sales Milestones

- (i) [***] U.S. Dollars (USD\$[***) upon the total annual royalty-bearing Net Sales for a ROYALTY PRODUCT on a worldwide basis first reaching \$[***].
- (ii) [***] U.S. Dollars (USD\$[***) upon the total annual royalty-bearing Net Sales for a ROYALTY PRODUCT on a worldwide basis first reaching \$[***].
- (iii) [***] U.S. Dollars (USD\$[***) upon the total annual royalty-bearing Net Sales for a ROYALTY PRODUCT on a worldwide basis first reaching \$[***].
- (iv) [***] U.S. Dollars (USD\$[***) upon the total annual royalty-bearing Net Sales for a ROYALTY PRODUCT on a worldwide basis first reaching \$[***].

Each of the foregoing sales milestone payments shall be payable only once and the overall payments due with respect to the foregoing milestones shall in no event exceed [***] U.S. Dollars (USD\$[***)).

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT B

QUARTERLY SALES & ROYALTY AND PARTNERSHIP PROCEEDS REPORT

FOR LICENSE AGREEMENT BETWEEN _____ AND

THE JOHNS HOPKINS UNIVERSITY DATED

FOR PERIOD OF _____ TO _____

TOTAL ROYALTIES DUE FOR THIS PERIOD \$ _____

PRODUCT ID	PRODUCT NAME	*JHU REFERENCE	1st COMMERCIAL SALE DATE	TOTAL NET SALES	ROYALTY RATE	AMOUNT DUE

Report of Partnership Proceeds:

Name of Sublicensee: _____

Date of Sublicense: _____

Partnership Proceeds Received: _____

Amount due: _____

* Please provide the JHU Reference Number or Patent Reference

This report format is to be used to report quarterly royalty statements to JHU. It should be placed on Company letterhead and accompany any royalty payments due for the reporting period. This report shall be submitted even if no sales are reported.

*** Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT C – INTENTIONALLY LEFT BLANK

***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

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[***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

UNITY BIOTECHNOLOGY, INC.
RESTRICTED STOCK ISSUANCE AGREEMENT

This Restricted Stock Issuance Agreement (the “Agreement”) is made as of [], 20[] by and between Unity Biotechnology, Inc., a Delaware corporation (the “Company”), and The Johns Hopkins University, a Maryland corporation (the “Grantee”). Reference is made to that certain License Agreement effective as of [], 2016 by and between the Company and the Grantee (the “License Agreement”). Capitalized terms not otherwise defined herein shall have the applicable meaning in the License Agreement.

In consideration of the mutual covenants and representations set forth below, the Company and Grantee agree as follows:

1. *Grant of the Shares.* Subject to the terms and conditions of this Agreement, the Company agrees to grant to Grantee, and Grantee agree to acquire from the Company, on the Closing (as defined below) [65,000] shares of the Company’s Common Stock, \$0.0001 par value per share (the “Shares”). The number of shares is in full and complete satisfaction of the Company’s obligations under Section 3.4 of the License Agreement for achievement of the following Milestone Event: [INSERT MILESTONE EVENT].

2. *Closing.* The transfer of the Shares shall occur at a closing (the “Closing”) to be held on the date first set forth above, or at any other time mutually agreed upon by the Company and Grantee. The Closing will take place at the principal office of the Company or at such other place as shall be designated by the Company. As promptly after the Closing as practicable, the Company will issue a stock certificate, registered in the name of Grantee, reflecting the Shares.

3. *Restrictions on Transfer.*

A. *Investment Representations and Legend Requirements.* The Grantee hereby make the investment representations listed on Exhibit A to the Company as of the date of this Agreement and as of the date of the Closing, and agrees that such representations are incorporated into this Agreement by this reference, such that the Company may rely on them in issuing the Shares. Grantee understand and agree that the Company shall cause the legends set forth below, or substantially equivalent legends, to be placed upon any certificate(s) evidencing ownership of the Shares, together with any other legends that may be required by the Company or by applicable state or federal securities laws:

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR THE SECURITIES LAWS OF ANY STATE, AND MAY NOT BE SOLD, TRANSFERRED, ASSIGNED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER SUCH ACT AND/OR APPLICABLE STATE SECURITIES LAWS, OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL OR OTHER EVIDENCE, REASONABLY SATISFACTORY TO THE COMPANY AND ITS COUNSEL, THAT SUCH REGISTRATION IS NOT REQUIRED.

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THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER, A RIGHT OF FIRST REFUSAL, AND A LOCK-UP PERIOD IN THE EVENT OF A PUBLIC OFFERING HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE RESTRICTED STOCK ISSUANCE AGREEMENT BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS, RIGHT OF FIRST REFUSAL AND LOCK-UP PERIOD ARE BINDING ON TRANSFEREES OF THESE SHARES.

THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

B. Stop-Transfer Notices. Grantee agree that to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

C. Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any acquirer or other transferee to whom such Shares shall have been so transferred.

D. Lock-Up Period. Grantee hereby agree that Grantee shall not sell, offer, pledge, contract to sell, grant any option or contract to purchase, purchase any option or contract to sell, grant any right or warrant to purchase, lend or otherwise transfer or encumber, directly or indirectly, any Shares or other securities of the Company, nor shall Grantee enter into any swap, hedging or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Shares or other securities of the Company, during the period from the filing of the first registration statement of the Company filed under the Securities Act of 1933, as amended (the "Securities Act"), that includes securities to be sold on behalf of the Company to the public in an underwritten public offering under the Securities Act through the end of the 180-day period following the effective date of such registration statement (or such other period as may be requested by the Company or the underwriters to accommodate regulatory restrictions on (i) the publication or other

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distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in NASD Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto). The obligations described in this section shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a transaction on Form S-4 or similar forms that may be promulgated in the future. Grantee further agree, if so requested by the Company or any representative of its underwriters, to enter into such underwriter's standard form of "lockup" or "market standoff" agreement in a form satisfactory to the Company and such underwriter. The Company may impose stop-transfer instructions with respect to securities subject to the foregoing restrictions until the end of any such restriction period.

4. **Company's Right of First Refusal.** Before any Shares acquired by the Grantee pursuant to this Agreement (or any beneficial interest in such Shares) may be sold, transferred, encumbered or otherwise disposed of in any way (whether by operation of law or otherwise) by the Grantee or any subsequent transferee (each a "Holder"), such Holder must first offer such Shares or beneficial interest to the Company and/or its assignee(s) as follows:

A. **Notice of Proposed Transfer.** The Holder shall deliver to the Company a written notice stating: (i) the Holder's bona fide intention to sell or otherwise transfer the Shares; (ii) the name of each proposed transferee; (iii) the number of Shares to be transferred to each proposed transferee; (iv) the bona fide cash price or other consideration for which the Holder proposes to transfer the Shares; and (v) that by delivering the notice, the Holder offers all such Shares to the Company and/or its assignee(s) pursuant to this section and on the same terms described in the notice.

B. **Exercise of Right of First Refusal.** At any time within 30 days after receipt of the Holder's notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the proposed transferees, at the purchase price determined in accordance with Section 4.C.

C. **Purchase Price.** The purchase price for the Shares purchased by the Company and/or its assignee(s) under this section shall be the price listed in the Holder's notice. If the price listed in the Holder's notice includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in its sole discretion.

D. **Payment.** Payment of the purchase price shall be made, at the option of the Company and/or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company and/or its assignee(s), or by any combination thereof within 30 days after receipt by the Company of the Holder's notice (or at such later date as is called for by such notice).

E. **Holder's Right to Transfer.** If all of the Shares proposed in the notice to be transferred to a given proposed transferee are not purchased by the Company and/or its assignee(s) as provided in this section, then the Holder may sell or otherwise transfer such Shares to that proposed transferee; provided that: (i) the transfer is made only on the terms provided for in the notice, with the exception of the purchase price, which may be either the price listed in the notice or any higher price; (ii) such transfer is consummated within 60 days after the date the notice is delivered to the Company; (iii) the transfer is effected in accordance

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with any applicable securities laws, and if requested by the Company, the Holder shall have delivered an opinion of counsel acceptable to the Company to that effect; and (iv) the proposed transferee agrees in writing to receive and hold the Shares so transferred subject to all of the provisions of this Agreement, including but not limited to this section, and there shall be no further transfer of such Shares except in accordance with the terms of this section. If any Shares described in a notice are not transferred to the proposed transferee within the period provided above, then before any such Shares may be transferred, a new notice shall be given to the Company, and the Company and/or its assignees shall again be offered the right of first refusal described in this section.

F. *Exception for Certain Family Transfers.* Notwithstanding anything to the contrary contained elsewhere in this section, the transfer of any or all of the Shares during the Holder's lifetime or on the Holder's death by will or intestacy to (i) the Holder's spouse; (ii) the Holder's lineal descendants or antecedents, siblings, aunts, uncles, cousins, nieces and nephews (including adoptive relationships and step relationships), and their spouses; (iii) the lineal descendants or antecedents, siblings, cousins, aunts, uncles, nieces and nephews of Holder's spouse (including adoptive relationships and step relationships), and their spouses; and (iv) a trust or other similar estate planning vehicle for the benefit of the Holder or any such person, shall be exempt from the provisions of this section; provided that, in each such case, the transferee agrees in writing to receive and hold the Shares so transferred subject to all of the provisions of this Agreement, including but not limited to this section, and there shall be no further transfer of such Shares except in accordance with the terms of this section; and provided further, that without the prior written consent of the Company, which may be withheld in the sole discretion of the Company, no more than three transfers may be made pursuant to this section, including all transfers by the Holder and all transfers by any transferee.

G. *Termination of Right of First Refusal.* The right of first refusal contained in this section shall terminate as to all Shares acquired hereunder upon the earlier of: (i) the closing date of the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act, and (ii) the closing date of a Change of Control pursuant to which the holders of the outstanding voting securities of the Company receive securities of a class registered pursuant to Section 12 of the Securities Exchange Act of 1934, as amended. For purposes of this Agreement, a "Change of Control" means either: (i) the acquisition of the Company by another entity by means of any transaction or series of related transactions (including, without limitation, any reorganization, merger or consolidation or stock transfer, but excluding any such transaction effected primarily for the purpose of changing the domicile of the Company), unless the Company's stockholders of record immediately prior to such transaction or series of related transactions hold, immediately after such transaction or series of related transactions, at least 50% of the voting power of the surviving or acquiring entity (provided that the sale by the Company of its securities for the purposes of raising additional funds shall not constitute a Change of Control hereunder); or (ii) a sale of all or substantially all of the assets of the Company.

5. *General Provisions.*

A. *Choice of Law.* This Agreement shall be governed by the internal substantive laws, but not the choice of law rules, of the State of California.

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B. Integration. *This Agreement, including all exhibits hereto, together with the License Agreement, represents the entire agreement between the parties with respect to the acquisition of the Shares by the Grantee and supersedes and replaces any and all prior written or oral agreements regarding the subject matter of this Agreement and the License Agreement including, but not limited to, any representations made during any interviews, relocation discussions or negotiations whether written or oral.*

C. Notices. *Any notice, demand, offer, request or other communication required or permitted to be given by either the Company or the Grantee pursuant to the terms of this Agreement shall be in writing and shall be deemed effectively given the earlier of (i) when received, (ii) when delivered personally, (iii) one business day after being delivered by facsimile (with receipt of appropriate confirmation), (iv) one business day after being deposited with an overnight courier service or (v) four days after being deposited in the U.S. mail, First Class with postage prepaid and return receipt requested, and addressed to the parties at the addresses provided to the Company (which the Company agrees to disclose to the other parties upon request) or such other address as a party may request by notifying the other in writing.*

D. Successors. *Any successor to the Company (whether direct or indirect and whether by purchase, merger, consolidation, liquidation or otherwise) to all or substantially all of the Company's business and/or assets shall assume the obligations under this Agreement and agree expressly to perform the obligations under this Agreement in the same manner and to the same extent as the Company would be required to perform such obligations in the absence of a succession. For all purposes under this Agreement, the term "Company" shall include any successor to the Company's business and/or assets which executes and delivers the assumption agreement described in this section or which becomes bound by the terms of this Agreement by operation of law. Subject to the restrictions on transfer set forth in this Agreement, this Agreement shall be binding upon Grantee and their heirs, executors, administrators, successors and assigns.*

E. Assignment; Transfers. *Except as set forth in this Agreement, this Agreement, and any and all rights, duties and obligations hereunder, shall not be assigned, transferred, delegated or sublicensed by the Grantee without the prior written consent of the Company. Any attempt by the Grantee without such consent to assign, transfer, delegate or sublicense any rights, duties or obligations that arise under this Agreement shall be void. Except as set forth in this Agreement, any transfers in violation of any restriction upon transfer contained in any section of this Agreement shall be void, unless such restriction is waived in accordance with the terms of this Agreement.*

F. Waiver. *Either party's failure to enforce any provision of this Agreement shall not in any way be construed as a waiver of any such provision, nor prevent that party from thereafter enforcing any other provision of this Agreement. The rights granted both parties hereunder are cumulative and shall not constitute a waiver of either party's right to assert any other legal remedy available to it.*

G. Grantee Investment Representations and Further Documents. *The Grantee agree upon request to execute any further documents or instruments necessary or reasonably desirable in the view of the Company to carry out the purposes or intent of this Agreement, including (but not limited to) the applicable exhibits and attachments to this Agreement.*

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H. *Severability. Should any provision of this Agreement be found to be illegal or unenforceable, the other provisions shall nevertheless remain effective and shall remain enforceable to the greatest extent permitted by law.*

I. *Rights as Stockholder. Subject to the terms and conditions of this Agreement, Grantee shall have all of the rights of a stockholder of the Company with respect to the Shares from and after the date that Grantee deliver a fully executed copy of this Agreement (including the applicable exhibits and attachments to this Agreement) and full payment for the Shares to the Company, and until such time as Grantee dispose of the Shares in accordance with this Agreement. Upon such transfer, Grantee shall have no further rights as a holder of the Shares so purchased except (in the case of a transfer to the Company) the right to receive payment for the Shares so purchased in accordance with the provisions of this Agreement, and Grantee shall forthwith cause the certificate(s) evidencing the Shares so purchased to be surrendered to the Company for transfer or cancellation.*

J. *Adjustment for Stock Split. All references to the number of Shares and the purchase price of the Shares in this Agreement shall be adjusted to reflect any stock split, stock dividend or other change in the Shares which may be made after the date of this Agreement.*

K. *Reliance on Counsel and Advisors. Grantee acknowledge that Latham & Watkins LLP, is representing only the Company in this transaction. Grantee acknowledges that he or she has had the opportunity to review this Agreement, including all attachments hereto, and the transactions contemplated by this Agreement with his or her own legal counsel, tax advisors and other advisors. Grantee are relying solely on his or her own counsel and advisors and not on any statements or representations of the Company or its agents for legal or other advice with respect to this investment or the transactions contemplated by this Agreement.*

L. *Counterparts. This Agreement may be executed in one or more counterparts, each of which will be deemed an original, but all of which together will constitute one and the same agreement. Facsimile copies of signed signature pages shall be binding originals.*

(Signature page follows)

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

The parties represent that they have read this Agreement in its entirety, have had an opportunity to obtain the advice of counsel prior to executing this Agreement and fully understand this Agreement.

COMPANY:

UNITY BIOTECHNOLOGY, INC.

By: _____

Name: Dr. Nathaniel E. David

Title: President and Chief Executive Officer

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The parties represent that they have read this Agreement in its entirety, have had an opportunity to obtain the advice of counsel prior to executing this Agreement and fully understand this Agreement. The Grantee agrees to notify the Company of any change in its address below.

GRANTEE:

THE JOHNS HOPKINS UNIVERSITY

Name:

Title:

Address:

3400 N. Charles Street

Baltimore, Maryland, 21218-2695

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

**EXHIBIT A to Stock Grant Agreement
INVESTMENT REPRESENTATION STATEMENT**

GRANTEE : THE JOHNS HOPKINS UNIVERSITY
COMPANY : UNITY BIOTECHNOLOGY, INC.
SECURITY : COMMON STOCK

AMOUNT : [] SHARES
DATE : []

In connection with the acquisition of the above-listed shares, The Johns Hopkins University represents to the Company as follows. For the sake of convenience of the parties, "I," "me," and "my" refer to The Johns Hopkins University.

1. *The Company may rely on these representations.* I understand that the Company's sale of the shares to me has not been registered under the Securities Act of 1933, as amended (the "Securities Act"), because the Company believes, relying in part on my representations in this document, that an exemption from such registration requirement is available for such sale. I understand that the availability of this exemption depends upon the representations I am making to the Company in this document being true and correct.

2. *I am purchasing for investment.* I am purchasing the shares solely for investment purposes, and not for further distribution. My entire legal and beneficial ownership interest in the shares is being acquired and shall be held solely for my account, except to the extent I intend to hold the shares jointly with my spouse. I am not a party to, and do not presently intend to enter into, any contract or other arrangement with any other person or entity involving the resale, transfer, grant of participation with respect to or other distribution of any of the shares. My investment intent is not limited to my present intention to hold the shares for the minimum capital gains period specified under any applicable tax law, for a deferred sale, for a specified increase or decrease in the market price of the shares, or for any other fixed period in the future.

3. *I can protect my own interests.* I can properly evaluate the merits and risks of an investment in the shares and can protect my own interests in this regard, whether by reason of my own business and financial expertise, the business and financial expertise of certain professional advisors unaffiliated with the Company with whom I have consulted, or my preexisting business or personal relationship with the Company or any of its officers, directors or controlling persons.

4. *I am informed about the Company.* I am sufficiently aware of the Company's business affairs and financial condition to reach an informed and knowledgeable decision to acquire the shares. I have had opportunity to discuss the plans, operations and financial condition of the Company with its officers, directors or controlling persons, and have received all information I deem appropriate for assessing the risk of an investment in the shares.

5. *I recognize my economic risk.* I realize that the acquisition of the shares involves a high degree of risk, and that the Company's future prospects are uncertain. I am able to hold the shares indefinitely if required, and am able to bear the loss of my entire investment in the shares.

*** Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

6. *I know that the shares are restricted securities.* I understand that the shares are “restricted securities” in that the Company’s sale of the shares to me has not been registered under the Securities Act in reliance upon an exemption for non-public offerings. In this regard, I also understand and agree that:

- A. I must hold the shares indefinitely, unless any subsequent proposed resale by me is registered under the Securities Act, or unless an exemption from registration is otherwise available (such as Rule 144);
- B. the Company is under no obligation to register any subsequent proposed resale of the shares by me; *and*
- C. the certificate evidencing the shares will be imprinted with a legend which prohibits the transfer of the shares unless such transfer is registered or such registration is not required in the opinion of counsel for the Company.

7. *I am familiar with Rule 144.* I am familiar with Rule 144 adopted under the Securities Act, which in some circumstances permits limited public resales of “restricted securities” like the shares acquired from an issuer in a non-public offering. I understand that my ability to sell the shares under Rule 144 in the future is uncertain, and may depend upon, among other things: (i) the availability of certain current public information about the Company; (ii) the resale occurring more than a specified period after my acquisition and full payment (within the meaning of Rule 144) for the shares; and (iii) if I am an affiliate of the Company (A) the sale being made in an unsolicited “broker’s transaction”, transactions directly with a market maker or riskless principal transactions, as those terms are defined under the Securities Exchange Act of 1934, as amended, (B) the amount of shares being sold during any three-month period not exceeding the specified limitations stated in Rule 144, *and* (C) timely filing of a notice of proposed sale on Form 144, if applicable.

8. *I know that Rule 144 may never be available.* I understand that the requirements of Rule 144 may never be met, and that the shares may never be saleable under the rule. I further understand that at the time I wish to sell the shares, there may be no public market for the Company’s stock upon which to make such a sale, or the current public information requirements of Rule 144 may not be satisfied, either of which may preclude me from selling the shares under Rule 144 even if the relevant holding period had been satisfied.

9. *I know that I am subject to further restrictions on resale.* I understand that in the event Rule 144 is not available to me, any future proposed sale of any of the shares by me will not be possible without prior registration under the Securities Act, compliance with some other registration exemption (which may or may not be available), or *each* of the following: (i) my written notice to the Company containing detailed information regarding the proposed sale, (ii) my providing an opinion of my counsel to the effect that such sale will not require registration, and (iii) the Company notifying me in writing that its counsel concurs in such opinion. I understand that neither the Company nor its counsel is obligated to provide me with any such opinion. I understand that although Rule 144 is not exclusive, the Staff of the SEC has stated that persons proposing to sell private placement securities other than in a registered offering or pursuant to Rule 144 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk.

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10. *I know that I may have tax liability due to the uncertain value of the shares.* I understand that the Board of Directors believes its valuation of the shares represents a fair appraisal of their worth, but that it remains possible that, with the benefit of hindsight, the Internal Revenue Service may successfully assert that the value of the shares on the date of my acquisition is substantially greater than the Board's appraisal. I understand that any additional value ascribed to the shares by such an IRS determination will constitute ordinary income to me as of the acquisition date, and that any additional taxes and interest due as a result will be my sole responsibility payable only by me, and that the Company need not and will not reimburse me for that tax liability.

11. *Non-U.S. Investor.* If I am not a United States person, I hereby represents that I am satisfied as to the full observance of the laws of my jurisdiction in connection with any invitation to receive the shares issuable pursuant to this Agreement, or any use of this Agreement, including (i) the legal requirements within my jurisdiction for the acquisition of the shares pursuant to this Agreement, (ii) any foreign exchange restrictions applicable to such receipt or transfer, (iii) any governmental or other consents that may need to be obtained and (iv) the income tax and other tax consequences, if any, that may be relevant to the acquisition, holding, redemption, sale or transfer of such securities. My subscription for, and my continued beneficial ownership of the shares will not violate any applicable securities or other laws of my jurisdiction.

12. *Principal Place of Business.* The address of a principal place of business of The Johns Hopkins University is set forth on the signature page below.

By signing below, the undersigned acknowledge their agreement with each of the statements contained in this Investment Representation Statement as of the date first set forth above, and their intent for the Company to rely on such statements in issuing the shares to me.

THE JOHNS HOPKINS UNIVERSITY

By:

Name:

Title:

Address of Grantee Principal Place of Business:

3400 N. Charles Street

Baltimore, Maryland, 21218-2695

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Certificate Of Completion

Envelope Id: 269313340F904A57A30CEB4D2A41F5C6

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Subject: Please DocuSign: A30652 JHU License Agreement (final) VT1.pdf

Source Envelope:

Document Pages: 39

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Johns Hopkins University – Technology Ventures

Security Level: Email, Account Authentication
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via DocuSign
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[***]

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Security Level: Email, Account Authentication (None)

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Electronic Record and Signature Disclosure: Accepted:
11/2/2016 2:36:19 PM
ID: [***]

Neil Veloso

Sent: 11/2/2016 2:36:39 PM

nveloso1@jhu.edu

Viewed: 11/3/2016 12:57:53 PM

Security Level: Email, Account Authentication
(None)

Signed: 11/3/2016 1:01:08 PM

Using IP Address: [***]

Electronic Record and Signature Disclosure: Not Offered
via DocuSign
ID:

Nathaniel David

Sent: 11/3/2016 1:01:10 PM

nathaniel.david@unitybiotechnology.com

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Security Level: Email, Account Authentication
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ID: [***]

Jennifer Elisseff

jhe@jhu.edu

Security Level: Email, Account Authentication (None)

Sent: 11/3/2016 1:38:12 PM

Resent: 11/18/2016 7:19:39 AM

Viewed: 11/18/2016 10:17:02 AM
Signed: 11/18/2016 10:19:25 AM

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Electronic Record and Signature Disclosure: Accepted:
11/1/2016 2:05:06 PM
ID: [***]

In Person Signer Events	Signature	Timestamp
Editor Delivery Events	Status	Timestamp
Agent Delivery Events	Status	Timestamp
Intermediary Delivery Events	Status	Timestamp
Certified Delivery Events	Status	Timestamp
Carbon Copy Events	Status	Timestamp
Notary Events		Timestamp
Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	11/18/2016 7:19:39 AM
Certified Delivered	Security Checked	11/18/2016 10:17:02 AM
Signing Complete	Security Checked	11/18/2016 10:19:25 AM
Completed	Security Checked	11/18/2016 10:19:25 AM

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Required hardware and software

Operating Systems:	Windows2000? or WindowsXP?
Browsers (for SENDERS):	Internet Explorer 6.0? or above
Browsers (for SIGNERS):	Internet Explorer 6.0?, Mozilla FireFox 1.0, NetScape 7.2 (or above)
Email:	Access to a valid email account
Screen Resolution:	800 x 600 minimum
Enabled Security Settings:	<ul style="list-style-type: none">• Allow per session cookies• Users accessing the internet behind a Proxy Server must enable HTTP 1.1 settings via proxy connection

** These minimum requirements are subject to change. If these requirements change, we will provide you with an email message at the email address we have on file for you at that time providing you with the revised hardware and software requirements, at which time you will have the right to withdraw your consent.

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To confirm to us that you can access this information electronically, which will be similar to other electronic notices and disclosures that we will provide to you, please verify that you were able to read this electronic disclosure and that you also were able to print on paper or electronically save this page for your future reference and access or that you were able to e-mail this disclosure and consent to an address where you will be able to print on paper or save it for your future reference and access. Further, if you consent to receiving notices and disclosures exclusively in electronic format on the terms and conditions described above, please let us know by clicking the 'I agree' button below.

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Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption “Experts” and to the use of our report dated March 1, 2018 (except for Note 17, and the retroactive effect of the 1-for-2.95 reverse stock split as described in Note 2, as to which the date is April 20, 2018) in Amendment No. 1 to the Registration Statement (Form S-1) and related Prospectus of Unity Biotechnology, Inc. dated April 23, 2018.

/s/ Ernst & Young LLP

Redwood City, California
April 23, 2018